

Professional Master's Degree

MBA in Corporate Technical Data Science Management



Professional Master's Degree MBA in Corporate Technical Data Science Management

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/information-technology/professional-master-degree/master-mba-corporate-technical-data-science-management

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01

Introduction

This intensive specialization program is aimed at those interested in attaining a higher level of knowledge of Corporate Technical Data Science Management. Its teaching program is unique for its careful selection of technologies, including the most recently incorporated and in demand in the business world. In addition, the incorporation of specific modules for the improvement of business vision and the management of multidisciplinary teams, makes this program different and capable of covering a large part of the educational needs of any professional who wishes to position themselves as a reference in the theoretical and practical knowledge of the latest technologies.



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With the best developed distance learning systems, this MBA will allow you to learn in a contextual way, learning the practical skills that you need”

In today's rapidly changing world, the proliferation of new technologies is a constant. Currently, we are accustomed to cutting-edge tools, platforms or technologies that are becoming obsolete with reduced applicability in the business environment.

Similarly, it is only natural that emerging or non-existent technologies in niche markets become trends in more general areas.

Without any doubt, this is an unstoppable and constantly evolving process, the maximum exponent of the current technological revolution, which forces IT professionals to specialise on a permanent basis.

In view of this situation, this MBA in Corporate Technical Data Science Management is offered as a comprehensive program that includes the most advanced and demanded technologies in the business environment.

Therefore, in an exercise of synthesis, from both a technical and business perspective, a set of subjects that are not usually covered by general educational programs has been selected, with the aim of providing students with the necessary technological knowledge to address multiple current technological problems through the use of the most appropriate and advanced techniques.

As such, the combination of both purely technical and business subjects, make this Professional Master's Degree a cutting-edge specialization especially oriented to professionals who seek to learn the most currently widespread technologies, or a higher level of knowledge of these.

The main objective is to enable students to apply the knowledge acquired in this course to the real world, in a work environment that reproduces the conditions that may be encountered in the future, in a rigorous and realistic manner.

As it is a 100% online program, students will not have to give up personal or professional obligations. Upon completion of the program, students will have updated their knowledge and will be in possession of an incredibly prestigious degree that will allow them to advance both personally and professionally.

This **MBA in Corporate Technical Data Science Management** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ Practical cases presented by experts in Advanced IT Technologies
- ◆ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable for professional practice
- ◆ Practical exercises where the self-assessment 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



An intensive professional growth program that will allow you to intervene in a sector with a growing demand for professionals"

“ *A high-quality program that will allow students to advance quickly and steadily in knowledge acquisition, with the scientific rigor of a global quality teaching*”

The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

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

A complete and cutting-edge program that will allow you to progressively and completely acquire the knowledge you need to work in this sector.

Comprehensive yet focused; this program will provide you with the specific knowledge IT professionals need to compete among the best in the sector.



02 Objectives

The objective of this specialization is to prepare professionals in MBA in Corporate Technical Data Science Management, with the knowledge and skills necessary to perform their activity, using the most advanced protocols and techniques of the moment. By means of a work approach totally adaptable to the student, this MBA will progressively lead you to acquire the skills that will propel you to a higher professional level. A unique specialization designed by professionals with extensive experience in the sector.





“

Delve into the field of computer technologies by incorporating the most advanced aspects of this field of work”



General Objectives

- ◆ Analyze ERP and CRM systems, their contribution and benefits
- ◆ Design and select the right ERP or CRM tool for each company
- ◆ Develop each stage of the data life-cycle
- ◆ Examine the data mining process
- ◆ Analyze a web platform and optimizing its operation
- ◆ Evaluate sessions and traffic to better understand the audience
- ◆ Develop specialized knowledge on maintainable, scalable and reliable systems
- ◆ Analyze different data models and their impact on applications
- ◆ Analyze classical system models and identify shortcomings for use in distributed applications
- ◆ Examine the distributed computing paradigm and establish the micro-service model
- ◆ Generate IoT expertise
- ◆ Develop the IoT Reference Architecture and technology framework
- ◆ Analyze the concept of Agile Methodology for Project Management and develop the elements and processes of the SCRUM framework
- ◆ Examine and develop the elements of the KANBAN method for Project Management
- ◆ Base our company's differentiation on intangible resources.
- ◆ Identify opportunities for improvement through mindfulness
- ◆ Present a business model based on flowing with change and uncertainty rather than "breaking" through resistance
- ◆ Dynamize the company by using emotion management as a way to success





Specific Objectives

Module 1. The Main Information Management Systems

- ◆ Developing a commercial strategy
- ◆ Generate specialized knowledge for commercial decision making
- ◆ Design a unified reporting system
- ◆ Determine how to establish communication and information exchange between the company's departments and customers
- ◆ Be able to transform information for decision making
- ◆ Develop a marketing plan for customer loyalty
- ◆ Design Marketing plan to increase sales

Module 2. Data Types and Life Cycle

- ◆ Generate specialized knowledge to perform data analysis
- ◆ Unify diverse data, Achieving consistency of information
- ◆ Produce relevant, effective information, for decision making
- ◆ Establish best practices for data management according to their typology and uses
- ◆ Use data management tools (with R)

Module 3. Number Machine Learning

- ◆ Evaluate the skills acquired in the process of moving from information to knowledge
- ◆ Develop the different types of machine learning
- ◆ Analyze the metrics and validation methods of different machine learning algorithms
- ◆ Compile the different implementations of the various machine learning methods
- ◆ Determine the probabilistic reasoning models
- ◆ Examine the potential of deep learning
- ◆ Demonstrate knowledge of different machine learning algorithms

Module 4. Web Analytics

- ◆ Generate specialized knowledge in the use of Web Analytics
- ◆ Examine the evolution and development from its origin to the present day
- ◆ Establish an optimal configuration of Google Analytics, a fundamental work tool in online marketing
- ◆ Analyze web traffic to understand user behavior
- ◆ Develop basic and advanced metrics that will allow us to evaluate hits or interactions with websites
- ◆ Determine monitoring parameters: metrics and dimensions
- ◆ Configure the Google Analytics tool and the use of tracking tags on the website
- ◆ Differentiate between the two existing versions of Google Analytics: UA vs. GA4
- ◆ Identify the the organization and structure of Universal Analytics: accounts, properties and views
- ◆ Analyze user behavior by interpreting predefined and/or customized reports
- ◆ Assess traffic subsets of the total data we see in reports using segments
- ◆ Evaluate conversions by optimizing the marketing strategy and making decisions based on the results obtained

Module 5. Scalable and Reliable Mass Data Usage Systems

- ◆ Establish the concepts of reliability, scalability and maintainability
- ◆ Evaluate relational, document and network models
- ◆ Analyze structured storage in the form of log, B-trees and other structures used in data engines
- ◆ Examine consistency models and their relationship to the concept of replication
- ◆ Understand the different replication models and associated issues
- ◆ Develop the fundamental principles of distributed transactions
- ◆ Examine database partitioning and keys to ensure that they are balanced

Module 6. System Administration for Distributed Deployments

- ◆ Develop requirements for distributed applications
- ◆ Make use of the most advanced tools for the exploitation of distributed applications
- ◆ Analyze the use of tools for infrastructure management
- ◆ Examine the most useful tools for the implementation of IaaS and PaaS models
- ◆ Develop the PaaS model and some of the tools currently used in its implementation
- ◆ Assess monitoring tools oriented to distributed systems
- ◆ Propose verification and testing techniques for distributed platforms
- ◆ Analyze the most used options in the implementation of Cloud platforms

Module 7. Internet of Things

- ◆ Determine what is IoT (Internet of Things) and IIoT (Industrial Internet of Things)
- ◆ Analyze the Industrial Internet Consortium
- ◆ Develop what is the IoT reference architecture
- ◆ Examine and classify IoT sensors and devices
- ◆ Establish the communications protocols and technologies used in IoT
- ◆ Analyze the different types of IoT platforms
- ◆ Develop the various data management mechanisms
- ◆ Establish security requirements for IoT data management
- ◆ Present the different IoT application areas

Module 8. Project Management and Agile Methodologies

- ◆ Present the PMI methodology for project management
- ◆ Establish the difference between project, program and project portfolio
- ◆ Evaluate the evolution of organizations working with projects
- ◆ Analyze which are the assets of the processes in the organizations
- ◆ Examine the matrix of process groups and knowledge areas and analyze its component processes
- ◆ Introduce the PMI family of project management credentials
- ◆ Evaluate the context of Agile methodologies for project management
- ◆ Developing the VUCA context (volatility, uncertainty, complexity and ambiguity)
- ◆ Identify Agile values
- ◆ Introduce the 12 principles of the Agile Manifesto
- ◆ Analyze the Agile SCRUM framework for project management
- ◆ Develop Scrum pillars

- ◆ Identify and define Scrum values
- ◆ Establish roles in a Scrum team
- ◆ Present the Typified Ceremonies in Scrum
- ◆ Assess the artifacts used by Scrum Teams
- ◆ Analyze Scrum Team agreements
- ◆ Examine the metrics for measuring the performance of a Scrum Team
- ◆ Present the Agile KANBAN Framework for Project Management
- ◆ Analyze the elements that make up the Kanban method: values, principles and general practices
- ◆ Identify and define Kanban values
- ◆ Develop Kanban method principles
- ◆ Analyze the different general practices in the Kanban method
- ◆ Examine metrics for performance measurement in Kanban
- ◆ Identify and analyze the differences between the three methodologies: PMI, Scrum y Kanban

Module 9. Communication, Leadership and Team Management

- ◆ Present the management skills necessary to ensure success in the technology company
- ◆ Proposing a leadership model adapted to change
- ◆ Establish emotional intelligence as a basic management tool in the company
- ◆ Analyze improvement opportunities through mentoring, coaching and their difference

- ◆ Promote a heightened state of consciousness about communication
- ◆ Enhance the satisfaction of people in the company and reduce stress levels, improving workers' relationships with superiors or employees, with customers and even in the personal environment
- ◆ Develop negotiation and conflict resolution strategies in the technology company

Module 10. Leadership, Ethics and Social Responsibility in Companies

- ◆ Analyze the impact of globalization on corporate governance and corporate social responsibility
- ◆ Evaluate the importance of effective leadership in the management and success of companies
- ◆ Define cross-cultural management strategies and their relevance in diverse business environments
- ◆ Develop leadership skills and understand the current challenges faced by leaders
- ◆ Determine the principles and practices of business ethics and their application in corporate decision making
- ◆ Structure strategies for the implementation and improvement of sustainability and social responsibility in business

Module 11. People and Talent Management

- ◆ Determine the relationship between strategic direction and human resources management
- ◆ Delve into the competencies necessary for the effective management of human resources by competencies
- ◆ Delve into the methodologies for performance evaluation and management
- ◆ Integrate innovations in talent management and their impact on employee retention and staff loyalty
- ◆ Develop strategies for motivation and development of high performance teams
- ◆ Propose effective solutions for change management and conflict resolution in organizations

Module 12. Economic and Financial Management

- ◆ Analyze the macroeconomic environment and its influence on the national and international financial system
- ◆ Define the information systems and Business Intelligence for financial decision-making
- ◆ Differentiate key financial decisions and risk management in financial management
- ◆ Evaluate strategies for financial planning and obtain business financing





Module 13. Commercial and Strategic Marketing Management

- ◆ Structure the conceptual framework and the importance of commercial management in companies
- ◆ Delve into the fundamental elements and activities of marketing and their impact on the organization
- ◆ Determine the stages of the strategic marketing planning process
- ◆ Evaluate strategies to improve corporate communication and the digital reputation of the company

Module 14. Define the concept of General Management and its relevance in business management

- ◆ Evaluate the roles and responsibilities of managers in organizational culture
- ◆ Analyze the importance of operations management and quality management in the value chain
- ◆ Develop interpersonal communication and public speaking skills for the formation of spokespersons



A comprehensive program for IT professionals, which will allow them to compete among the best in the sector"

03 Skills

After passing the evaluations of the MBA in Corporate Technical Data Science Management, students will have acquired the professional skills necessary to perform quality work in the field of information technology and, in addition, will have acquired new skills and techniques that will help them to complement the knowledge they previously possessed, placing them at the most up-to-date level.



“

Through a program created to boost your professional growth, in the fastest and most intensive way, you will increase your ability to intervene in all areas of advanced computer technologies"



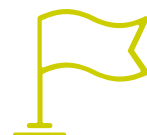
General Skill

- ◆ Respond to current needs in the area of Advanced Information Technologies

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A unique, key and decisive specialization experience to boost your professional development”





Specific Skills

- ◆ Specialize in the most common information systems
- ◆ Use algorithms, tools and platforms to apply machine learning techniques
- ◆ Manage specific architectures for high-volume information processing for business exploitation
- ◆ Make use of the main IoT technologies and their applicability in real environments
- ◆ Carry out web analytics processes to better understand the potential client, as a key tool for the management of strategic actions
- ◆ Manage projects and people more effectively

04

Course Management

In its maxim of offering an elite education for all, TECH counts on renowned professionals so that students acquire a solid knowledge in Corporate Technical Data Science Management. This MBA has a highly qualified team with extensive experience in the sector, which will offer the best tools for students to develop their skills during the course. In this way, students have the guarantees required to specialize at an international level in a booming sector that will catapult them to professional success.



“

Succeed with the best and gain the knowledge and skills you need to embark on a career in the advanced IT sector”

International Guest Director

With over 20 years of experience in designing and leading global **talent acquisition teams**, Jennifer Dove is an expert in **technology recruitment** and **strategy**. Throughout her career, she has held senior positions in several technology organizations within **Fortune 50** companies such as **NBCUniversal** and **Comcast**. Her track record has allowed her to excel in competitive, high-growth environments.

As **Vice President of Talent Acquisition** at **Mastercard** she is responsible for overseeing talent onboarding strategy and execution, collaborating with business leaders and **HR Managers** to meet operational and strategic hiring objectives. In particular, she aims to **build diverse, inclusive and high-performing teams** that drive innovation and growth of the company's products and services. In addition, she is adept at using tools to attract and retain the best people from around the world. She is also responsible for **amplifying** Mastercard's **employer brand** and **value proposition** through publications, events and social media.

Jennifer Dove has demonstrated her commitment to continuous professional development by actively participating in networks of **Human Resources** professionals and contributing to the onboarding of numerous employees at different companies. After earning her bachelor's degree in **Organizational Communication** from the University of Miami, she has held management positions in recruitment for companies in various areas.

On the other hand, it has been recognized for its ability to lead organizational transformations, **integrate technologies** into **recruitment processes** and develop leadership programs that prepare institutions for future challenges. She has also successfully implemented **wellness programs** that have significantly increased employee satisfaction and retention.



Ms. Dove, Jennifer

- Vice President of Talent Acquisition at Mastercard, New York, United States
- Director of Talent Acquisition at NBCUniversal Media, New York, USA
- Head of Recruitment at Comcast
- Director of Recruiting at Rite Hire Advisory, New York, USA
- Executive Vice President of the Sales Division at Ardor NY Real Estate
- Director of Recruitment at Valerie August & Associates
- Account Executive at BNC
- Account Executive at Vault
- Graduated in Organizational Communication from the University of Miami

“

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

International Guest Director

A technology leader with decades of experience in major technology multinationals, Rick Gauthier has developed prominently in the field of cloud services and end-to-end process improvement. He has been recognized as a leader and manager of highly efficient teams, showing a natural talent for ensuring a high level of engagement among his employees.

He possesses innate gifts in strategy and executive innovation, developing new ideas and backing his success with quality data. His background at Amazon has allowed him to manage and integrate the company's IT services in the United States. At Microsoft he has led a team of 104 people, responsible for providing corporate-wide IT infrastructure and supporting product engineering departments across the company.

This experience has allowed him to stand out as a high-impact manager with remarkable abilities to increase efficiency, productivity and overall customer satisfaction.



D. Gauthier, Rick

- Regional IT Director at Amazon, Seattle, USA
- Senior Program Manager at Amazon
- Vice President of Wimmer Solutions
- Senior Director of Productive Engineering Services at Microsoft
- Degree in Cybersecurity from Western Governors University
- Technical Certificate in Commercial Diving from Divers Institute of Technology
- B.S. in Environmental Studies from The Evergreen State College

“

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

International Guest Director

Romi Arman is a renowned international expert with more than two decades of experience in **Digital Transformation, Marketing, Strategy and Consulting**. Through that extended trajectory, he has taken different risks and is a permanent **advocate for innovation and change** in the business environment. With that expertise, he has collaborated with CEOs and corporate organizations from all over the world, pushing them to move away from traditional business models. In this way, he has helped companies such as Shell Energy become **true market leaders**, focused on their **customers** and the **digital world**.

The strategies designed by Arman have a latent impact, as they have enabled several corporations **to improve the experiences of consumers, staff and shareholders** alike. The success of this expert is quantifiable through tangible metrics such as **CSAT, employee engagement** in the institutions where he has practiced and the growth of the **EBITDA financial indicator** in each of them.

Also, in his professional career, he has nurtured and **led high-performance teams** that have even received awards for their **transformational potential**. With Shell, specifically, the executive has always set out to overcome three challenges: meeting **customers'** complex **decarbonization** demands **supporting a "cost-effective decarbonization"** and **overhauling** a fragmented **data, digital and technology landscape**. Thus, his efforts have shown that in order to achieve sustainable success, it is essential to start from the needs of consumers and lay the foundations for the transformation of processes, data, technology and culture.

In addition, the executive stands out for his mastery of the **business applications of Artificial Intelligence**, a subject in which he holds a postgraduate degree from the London Business School. At the same time, he has accumulated experience in **IoT and Salesforce**.



Mr. Arman, Romi

- Digital Transformation Director (CDO) at Shell Energy Corporation, London, UK
- Global Director of E-Commerce and Customer Service at Shell Energy Corporation
- National Key Account Manager (OEM and automotive retailers) for Shell in Kuala Lumpur, Malaysia
- Senior Management Consultant (Financial Services Sector) for Accenture based in Singapore
- Graduate of the University of Leeds
- Graduate Diploma in Business Applications of AI for Senior Executives from London Business School
- CCXP Customer Experience Professional Certification
- IMD Executive Digital Transformation Course

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Do you want to update your knowledge with the highest educational quality? TECH offers you the most updated content in the academic market, designed by authentic experts of international prestige”

International Guest Director

Manuel Arens is an experienced data management professional and leader of a highly qualified team. In fact, Arens holds the position of **global purchasing manager** in Google's Technical Infrastructure and Data Center division, where he has spent most of his professional career. Based in Mountain View, California, he has provided solutions for the tech giant's operational challenges, such as **master data integrity, vendor data updates** and **vendor prioritization**. He has led data center supply chain planning and vendor risk assessment, generating improvements in vendor risk assessment, resulting in process improvements and workflow management that have resulted in significant cost savings.

With more than a decade of work providing digital solutions and leadership for companies in diverse industries, he has extensive experience in all aspects of strategic solution delivery, including **marketing, media analytics, measurement and attribution**. In fact, he has received a number of accolades for his work, including the **BIM Leadership Award**, the **Search Leadership Award**, the **Lead Generation Export Program Award** and the **Export Lead Generation Program Award** and the **EMEA Best Sales Model Award**.

Arens also served as **Sales Manager** in Dublin, Ireland. In this role, he built a team of 4 to 14 members over three years and led the sales team to achieve results and collaborate well with each other and cross-functional teams. He also served as **Senior Industry Analyst**, Hamburg, Germany, creating storylines for over 150 clients using internal and third party tools to support analysis. He developed and wrote in-depth reports to demonstrate his mastery of the subject matter, including understanding the **macroeconomic and political/regulatory factors** affecting technology adoption and diffusion.

He has also led teams at companies such as Eaton, Airbus and Siemens, where he gained valuable account management and supply chain experience. He is particularly noted for continually exceeding expectations by **building valuable customer relationships** and **working seamlessly with people at all levels of an organization**, including stakeholders, management, team members and customers. His data-driven approach and ability to develop innovative and scalable solutions to industry challenges have made him a prominent leader in his field.



Mr. Arens, Manuel

- Global Procurement Manager at Google, Mountain View, USA
- Senior Manager, B2B Analytics and Technology, Google, USA
- Sales Director - Google, Ireland
- Senior Industry Analyst at Google, Germany
- Accounts Manager - Google, Ireland
- Accounts Payable at Eaton, UK
- Supply Chain Manager at Airbus, Germany

“

Bet on TECH! You will have access to the best didactic materials, at the forefront of technology and education, implemented by internationally renowned specialists in the field"

International Guest Director

Andrea La Sala is an experienced **Marketing executive** whose projects have had a **significant impact** on the **Fashion environment**. Throughout his successful career he has developed different tasks related to **Products, Merchandising and Communication**. All of this linked to with prestigious brands such as **Giorgio Armani, Dolce&Gabbana, Calvin Klein**, among others.

The results of this **high-profile international executive** have been linked to his proven ability to **synthesize information** in clear frameworks and execute **concrete actions** aligned to **specific business objectives**. In addition, he is recognized for his **proactivity and adaptability to fast-paced** work rhythms. To all this, this expert adds a **strong commercial awareness,, market vision** and a **genuine passion for products**.

As **Global Brand and Merchandising Director** at **Giorgio Armani**, he has overseen a variety of **Marketing strategies** for **apparel and accesories**. His tactics have also focused on the **retail environment** and **consumer needs and behavior**. In this

La Sala has also been responsible for shaping the commercialization of products in different markets, acting as **team leader** in the **Design, Communication and Sales departments..**

On the other hand, in companies such as **Calvin Klein** or **Gruppo Coin**, he has undertaken projects to boost the **structure, and development of different collections**. He has been in charge of creating **effective calendars** for buying and selling **campaings**.

He has also been in charge of the **terms, costs, processes and delivery times** of different operations.

These experiences have made Andrea La Sala one of the main and most qualified **corporate leaders** in **Fashion and Luxury**. A high managerial capacity with which he has managed to effectively **implement the positive positioning of different brands** and redefine their key performance indicators (KPIs).



Ms. La Sala, Andrea

- Global Brand & Merchandising Director Armani Exchange at Giorgio Armani, Milan, Italy
- Merchandising Director at Calvin Klein
- Brand Manager at Gruppo Coin
- Brand Manager at Dolce&Gabbana
- Brand Manager at Sergio Tacchini S.p.A.
- Market Analyst at Fastweb
- Graduate of Business and Economics at Università degli Studi del Piemonte Orientale

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The most qualified and experienced professionals at international level are waiting for you at TECH to offer you a first class teaching, updated and based on the latest scientific evidence. What are you waiting for to enroll?"

International Guest Director

Mick Gram is synonymous with innovation and excellence in the field of **Business Intelligence** internationally. His successful career is linked to leadership positions in multinationals such as **Walmart** and **Red Bull**. Likewise, this expert stands out for his vision to **identify emerging technologies** that, in the long term, achieve an everlasting impact in the corporate environment.

On the other hand, the executive is considered a **pioneer** in the **use of data visualization techniques** that simplified complex sets, making them accessible and facilitating decision making. This ability became the pillar of his professional profile, transforming him into a desired asset for many organizations that bet on **gathering information** and **generating concrete actions** from them.

One of his most outstanding projects in recent years has been the **Walmart Data Cafe platform**, the largest of its kind in the world that is anchored in the **cloud** aimed at **Big Data** analysis. In addition, he has held the position of **Director of Business Intelligence** at **Red Bull**, covering areas such as **Sales, Distribution, Marketing and Supply Chain Operations**. His team was recently recognized for its constant innovation regarding the use of Walmart Luminare's new API for Shopper and Channel insights.

As for his training, the executive has several Masters and postgraduate studies at prestigious centers such as the **University of Berkeley**, in the United States, and the **University of Copenhagen**, in Denmark. Through this continuous updating, the expert has attained cutting-edge competencies. Thus, he has come to be considered a **born leader** of the **new global economy**, centered on the drive for data and its infinite possibilities.



Mr. Gram, Mick

- Director of Business Intelligence and Analytics at Red Bull, Los Angeles, United States
- Business Intelligence Solutions Architect for Walmart Data Cafe
- Independent Business Intelligence and Data Science Consultant
- Director of Business Intelligence at Capgemini
- Senior Analyst at Nordea
- Senior Business Intelligence Consultant at SAS
- Executive Education in AI and Machine Learning at UC Berkeley College of Engineering
- Executive MBA in e-commerce at the University of Copenhagen
- B.Sc. and M.Sc. in Mathematics and Statistics at the University of Copenhagen

“

Study at the best online university in the world according to Forbes! In this MBA you will have access to an extensive library of multimedia resources, developed by internationally renowned professors”

International Guest Director

Scott Stevenson is a distinguished expert in the **Digital Marketing** sector who, for more than 19 years, has been linked to one of the most powerful companies in the entertainment industry, **Warner Bros. Discovery**. In this role, he has played a fundamental role in **overseeing logistics and creative workflows** across various digital platforms, including social media, search, display and linear media.

This executive's leadership has been crucial in driving in **production strategies in paid media**, resulting in a **marked improvement** which has resulted in **company's conversion rates**. At the same time, he has assumed other roles, such as Director of Marketing Services and Traffic Manager at the same multinational during his former management.

Stevenson has also been involved in the global distribution of video games and **digital property campaigns**. He was also responsible for introducing operational strategies related to the formation, completion and delivery of sound and image content for **television commercials and trailers**.

In addition, he holds a Bachelor's degree in Telecommunications from the University of Florida and a Master's Degree in Creative Writing from the University of California, which demonstrates his proficiency in **communication and storytelling**. In addition, he has participated at Harvard University's School of Professional Development in cutting-edge programs on the use of **Artificial Intelligence in business**. Therefore, his professional profile stands as one of the most relevant in the current field of **Marketing and Digital Media**.



Mr. Stevenson, Scott

- Director of Digital Marketing at Warner Bros. Discovery, Burbank, United States
- Traffic Manager at Warner Bros. Entertainment.
- M.A. in Creative Writing from the University of California
- B.S. in Telecommunications from the University of Florida

“

Achieve your academic and career goals with the best qualified experts in the world! The faculty of this MBA will guide you through the entire learning process"

International Guest Director

Eric Nyquist, Ph.D., is a leading international sports professional who has built an impressive career, noted for his **strategic leadership** and ability to drive change and **innovation** in world-class sports organizations.

In fact, he has held senior roles such as **Director of Communications and Impact** at **NASCAR**, based in **Florida, USA**. With many years of experience behind him at NASCAR, Dr. Nyquist has also held several leadership positions, including **Senior Vice President of Strategic Development** and **General Manager of Business Affairs**, managing more than a dozen disciplines ranging from **strategic development** to **entertainment marketing**.

Nyquist has also made a significant mark on **Chicago's top** sports franchises. As **Executive Vice President** of the **Chicago Bulls** and **Chicago White Sox** franchises, he has demonstrated his ability to drive **business** and **strategic success** in the world of **professional sports**.

Finally, it is worth noting that he began his career in **sports** while working in **New York** as a **senior strategic analyst** for **Roger Goodell** in the **National Football League (NFL)** and, prior to that, as a **Legal Intern** with the **United States Football Federation**.



Mr. Nyquist, Eric

- Director of Communications and Impact at NASCAR, Florida, USA
- Senior Vice President of Strategic Development at NASCAR, Florida, United States
- Vice President of Strategic Planning at NASCAR
- Senior Director of Business Affairs at NASCAR
- Executive Vice President at Chicago White Sox Franchises
- Executive Vice President at Chicago Bulls Franchises
- Manager of Business Planning at the National Football League (NFL)
- Business Affairs/Legal Intern with the United States Soccer Federation
- Juris Doctor from the University of Chicago
- Master's Degree in Business Administration-MBA from the University of Chicago Booth School of Business
- B.A. in International Economics from Carleton College

“

Thanks to this university program, 100% online, you will be able to combine your studies with your daily obligations, under the guidance of the leading international experts in the field of your interest. Enroll now!”

Management



Dr. Peralta Martín-Palomino, Arturo

- CEO and CTO at Prometheus Global Solutions
- CTO at Korporate Technologies
- CTO at AI Shephers GmbH
- Consultant and Strategic Business Advisor at Alliance Medical
- Director of Design and Development at DocPath
- PhD. in Psychology from the University of Castilla La Mancha
- PhD in Economics, Business and Finance from the Camilo José Cela University
- PhD in Psychology from University of Castilla La Mancha
- Máster in Executive MBA por la Universidad Isabel I
- Master's Degree in Sales and Marketing Management, Isabel I University
- Expert Master's Degree in Big Data by Hadoop Training
- Master's Degree in Advanced Information Technologies from the University of Castilla La Mancha
- Member of: SMILE Research Group

Professors

Dr. Montoro Montarroso, Andrés

- ◆ Researcher in the SMILe Group at the University of Castilla-La Mancha
- ◆ Researcher at the University of Granada
- ◆ Data Scientist at Prometheus Global Solutions
- ◆ Vice President and Software Developer at CireBits
- ◆ PhD in Advanced Information Technologies from the University of Castilla La Mancha
- ◆ Graduate in Computer Engineering from the University of Castilla-La Mancha
- ◆ Master's Degree in Data Science and Computer Engineering from the University of Granada
- ◆ Guest lecturer in the subject of Knowledge-Based Systems at the Escuela Superior de Informática de Ciudad Real, Giving the Lecture: Advanced Artificial Intelligence Techniques: Search and Analysis of Potential Social Media Radicals
- ◆ Guest lecturer in the subject of Data Mining at the Escuela Superior de Informática de Ciudad Real , giving the lecture: Applications of Natural Language Processing: Fuzzy logic to the analysis of messages in social networks
- ◆ Speaker at the Seminar on Prevention of Corruption in Public Administrations and Artificial Intelligence at the Faculty of Law and Social Sciences of Toledo, giving the lecture: Artificial Intelligence Techniques
- ◆ Speaker at the first International Seminar on Administrative Law and Artificial Intelligence (DAIA). Organized by the Luis Ortega Álvarez Centre for European Studies and the TransJus Research Institute. Conference entitled "Sentiment Analysis for the prevention of hate speech on social media

Ms. Palomino Dávila, Cristina

- ◆ Data Protection and Information Security Consultant in Grupo Oesía
- ◆ Deputy Director of Auditing at the General Secretariat of the Compañía Logística de Hidrocarburos CLH
- ◆ Consultant in the Area of Corporate Legal Relations at Canal de Isabel II
- ◆ Consultant and Auditor at Helas Consultores S.L.
- ◆ Consultant and Auditor in Alaro Avant
- ◆ Lawyer in the area of New Technologies at Lorenzo Abogados
- ◆ Graduate in Law from the University of Castilla- La Mancha
- ◆ Master's Degree in Legal Consultancy for Businesses from the Instituto de Empresa
- ◆ Advanced Course in Digital Security and Crisis Management by the University of Alcalá and the Spanish Security and Crisis Alliance(AESYC)
- ◆ Member of: Spanish Professional Privacy Association (APEP), ISMS Forum

Mr. Peris Morillo, Luis Javier

- ◆ Technical Lead at Capitole Consulting for Inditex
- ◆ Senior Technical Lead and Delivery Lead Support at HCL Technologies
- ◆ Technical Editor at Baeldung
- ◆ Agile Coach and Operations Manager at Mirai Advisory
- ◆ Developer, Team Lead, Scrum Master, Agile Coach and Product Manager at DocPath
- ◆ Technologist at ARCO
- ◆ Graduate in Computer Science Engineering from the University of Castilla-La Mancha
- ◆ Master's Degree in Project Management from CEOE

Ms. García La O, Marta

- ◆ Specialist in Digital Marketing and Social Networks
- ◆ Management, Administration and Account management at Think Planning and Development SI
- ◆ Senior Management Training Instructor at Think Planning and Development SI
- ◆ Marketing Specialist at Versas Consultores
- ◆ Postgraduate Certificate in Business Studies from the University of Murcia
- ◆ Master's Degree in Sales and Marketing Management, Fundesem Business School

Mr. García Niño, Pedro

- ◆ Specialist in Web Positioning and SEO
- ◆ Sales Manager for IT services at Camuñase and Electrocamuñas
- ◆ Hardware and software technician at Camuñase and Electrocamuñas
- ◆ Specialist in e Google Ads(, PPC, and SEM)
- ◆ SEO On-Page and OffPage Specialist
- ◆ Specialist in Google Analytics/Digital Marketing Analytics and Performance Measurement

Mr. Tato Sánchez, Rafael

- ◆ Technical Director at Indra Sistemas SA
- ◆ Systems Engineer in ENA TRÁFICO SAU
- ◆ Master's Degree in Industry 4.0. by the Online University
- ◆ Master's Degree in Industrial Engineering from the University Europe.
- ◆ Industrial Electronics and Automation Engineering Degree from the Universidad Europea
- ◆ Industrial Technical Engineer by Universidad Politécnica de Madrid

Mr. Díaz Díaz-Chirón, Tobías

- ◆ Expert consultant in Telecommunications
- ◆ Researcher in the ArCO laboratory of the University of Castilla-La Mancha
- ◆ Consultant at Blue Telecom
- ◆ Freelance mainly dedicated to the telecommunications sector, specialising in 4G/5G networksOpenStack: deploy and administration
- ◆ Computer Engineer from the University of Castilla - la Mancha
- ◆ Specialization in Architecture and computer network
- ◆ Associate Professor at the University of Castilla-La Mancha
- ◆ Speaker at Sepecam course on network administration

Ms. Martínez Cerrato, Yésica

- ◆ Education, Business and Marketing Specialist
- ◆ Responsible for Technical Training at Securitas Seguridad España
- ◆ Product Manager in Electronic Security at Securitas Direct
- ◆ Business Intelligence Analyst at Ricopia Technologies
- ◆ Computer Technician and Responsible for OTEC computer classrooms at the University of Alcalá de Henares
- ◆ Collaborator in the ASALUMA Association
- ◆ Degree in Electronic Communications Engineering at the Polytechnic School, University of Alcalá de Henares

**Ms. Fernández Meléndez, Galina**

- ◆ Specialist's Degree in Big Data
- ◆ Data Analyst at Aresi Gestión de Fincas
- ◆ Data Analyst in ADN Mobile Solution
- ◆ Bachelor's Degree in Business Administration at Universidad Bicentenario Aragua Caracas, Venezuela
- ◆ Diploma in Planning and Public Finance from the Venezuelan School of Planning
- ◆ Master's Degree in Data Analysis and Business Intelligence from the University of Oviedo
- ◆ MBA in Business Administration and Management by the European Business School of Barcelona
- ◆ Master's Degree in Big Data and Business Intelligence from the European Business School of Barcelona

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Make the most of this opportunity to learn about the latest advances in this field in order to apply it to your daily practice”

05

Structure and Content

The syllabus has been designed based on educational efficiency, carefully selecting the contents to offer a comprehensive course, which includes all the fields of study that are essential to achieve real knowledge of the subject. Including the latest updates and aspects of the field. Therefore, the syllabus consists of modules that offer a broad perspective of Corporate Technical Data Science Management From first module, students will see their knowledge expanding, which will enable them to develop professionally, knowing that they can count on the support of a team of experts.





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All the subjects and areas of knowledge have been compiled in a complete and absolutely up-to-date syllabus, in order to bring the student to the highest theoretical and practical level"

Module 1. The Main Information Management Systems

- 1.1. ERP and CRM
 - 1.1.1. ERP
 - 1.1.2. CRM
 - 1.1.3. Differences between ERP and CRM Selling Point
 - 1.1.4. Business Success
- 1.2. ERP
 - 1.2.1. ERP
 - 1.2.2. Types of ERPs
 - 1.2.3. Development of an ERP Implementation Project
 - 1.2.4. ERP Resource Optimizer
 - 1.2.5. Architecture of an ERP System
- 1.3. Information Provided by the ERP
 - 1.3.1. Information Provided by the ERP
 - 1.3.2. Advantages and Disadvantages
 - 1.3.3. The Information
- 1.4. ERP Systems
 - 1.4.1. Current ERP Systems and Tools
 - 1.4.2. Decision Making
 - 1.4.3. Day-to-Day with ERP
- 1.5. CRM: The Implementation Project
 - 1.5.1. The CRM The Implementation Project
 - 1.5.2. The CRM as a Commercial Tool
 - 1.5.3. Strategies for the Information System
- 1.6. CRM: Customer Loyalty
 - 1.6.1. Starting Point
 - 1.6.2. Sales or Loyalty
 - 1.6.3. Factors for Success in our Loyalty System
 - 1.6.4. Multi-Channel Strategies
 - 1.6.5. Design of Loyalty Actions
 - 1.6.6. E-Loyalty

- 1.7. CRM: Communication Campaigns
 - 1.7.1. Communication Actions and Plans
 - 1.7.2. Importance of the Informed Customer
 - 1.7.3. Listening to the Client
- 1.8. CRM: Dissatisfaction Prevention
 - 1.8.1. Customer Cancellations
 - 1.8.2. Detecting Errors in Time
 - 1.8.3. Improvement Processes
 - 1.8.4. Recovery of the Dissatisfied Customer
- 1.9. CRM: Special Communication Actions
 - 1.9.1. Objectives and Planning of a Company Event
 - 1.9.2. Design and Realization of the Event
 - 1.9.3. Actions from the Department
 - 1.9.4. Result Analysis
- 1.10. Relational Marketing
 - 1.10.1. Implantation. Errors
 - 1.10.2. Methodology, Segmentation and Processes
 - 1.10.3. Performance, According to the Department
 - 1.10.4. CRM Tools

Module 2. Data Types and Life Cycle

- 2.1. Statistics
 - 2.1.1. Statistics: Descriptive Statistics, Statistical Inferences
 - 2.1.2. Population, Sample, Individual
 - 2.1.3. Variables: Definition, Measurement Scales
- 2.2. Types of Data Statistics
 - 2.2.1. According to Type
 - 2.2.1.1. Quantitative: Continuous Data and Discrete Data
 - 2.2.1.2. Qualitative: Binomial Data, Nominal Data and Ordinal Data

- 2.2.2. According to their Shape
 - 2.2.2.1. Numeric
 - 2.2.2.2. Text:
 - 2.2.2.3. Logical
- 2.2.3. According to its Source
 - 2.2.3.1. Primary
 - 2.2.3.2. Secondary
- 2.3. Life Cycle of Data
 - 2.3.1. Stages of the Cycle
 - 2.3.2. Milestones of the Cycle
 - 2.3.3. FAIR Principles
- 2.4. Initial Stages of the Cycle
 - 2.4.1. Definition of Goals
 - 2.4.2. Determination of Resource Requirements
 - 2.4.3. Gantt Chart
 - 2.4.4. Data Structure
- 2.5. Data Collection
 - 2.5.1. Methodology of Data Collection
 - 2.5.2. Data Collection Tools
 - 2.5.3. Data Collection Channels
- 2.6. Data Cleaning
 - 2.6.1. Phases of Data Cleansing
 - 2.6.2. Data Quality
 - 2.6.3. Data Manipulation (with R)
- 2.7. Data Analysis, Interpretation and Evaluation of Results
 - 2.7.1. Statistical Measures
 - 2.7.2. Relationship Indexes
 - 2.7.3. Data Mining
- 2.8. Data Warehouse (Datawarehouse)
 - 2.8.1. Elements that Comprise it
 - 2.8.2. Design
 - 2.8.3. Aspects to Consider

- 2.9. Data Availability
 - 2.9.1. Access
 - 2.9.2. Uses
 - 2.9.3. Security
- 2.10. Data Protection Law
 - 2.10.1. Good Practices
 - 2.10.2. Other Regulatory Aspects

Module 3. Number Machine Learning

- 3.1. Knowledge in Databases
 - 3.1.1. Data Pre-Processing
 - 3.1.2. Analysis
 - 3.1.3. Interpretation and Evaluation of the Results
- 3.2. Machine Learning
 - 3.2.1. Supervised and Unsupervised Learning
 - 3.2.2. Reinforcement Learning
 - 3.2.3. Semi-Supervised Learning: Other Learning Models
- 3.3. Classification
 - 3.3.1. Decision Trees and Rule-Based Learning
 - 3.3.2. Support Vector Machines (SVM) and K-Nearest Neighbor (KNN) Algorithms.
 - 3.3.3. Metrics for Sorting Algorithms
- 3.4. Regression
 - 3.4.1. Linear and Logistic Regression
 - 3.4.2. Non-Linear Regression Models
 - 3.4.3. Time Series Analysis
 - 3.4.4. Metrics for Regression Algorithms
- 3.5. Clustering
 - 3.5.1. Hierarchical Grouping
 - 3.5.2. Partitional Grouping
 - 3.5.3. Metrics for Clustering Algorithms

- 3.6. Association Rules
 - 3.6.1. Measures of Interest
 - 3.6.2. Rule Extraction Methods
 - 3.6.3. Metrics for Association Rule Algorithms
- 3.7. Multiclassifiers
 - 3.7.1. "Bootstrap Aggregation" or "Bagging"
 - 3.7.2. "Random "Forests" Algorithm
 - 3.7.3. "Boosting" Algorithm
- 3.8. Probabilistic Reasoning Models
 - 3.8.1. Probabilistic reasoning
 - 3.8.2. Bayesian Networks or Belief Networks
 - 3.8.3. "Hidden Markov Models"
- 3.9. Multilayer Perceptron
 - 3.9.1. Neural Network:
 - 3.9.2. Machine Learning with Neural Networks
 - 3.9.3. Gradient Descent, Backpropagation and Activation Functions
 - 3.9.4. Implementation of an Artificial Neural Network
- 3.10 Deep Learning
 - 3.10.1. Deep Neural Networks. Introduction
 - 3.10.2. Convolutional Networks
 - 3.10.3. Sequence Modelling
 - 3.10.4. Tensorflow and Pytorch

Module 4. Web Analytics

- 4.1. Web Analytics
 - 4.1.1. Introduction
 - 4.1.2. Evolution of Web Analytics
 - 4.1.3. Analysis Process
- 4.2. Google Analytics
 - 4.2.1. Google Analytics
 - 4.2.2. Use
 - 4.2.3. Objectives

- 4.3. Hits. Interactions with the Website
 - 4.3.1. Basic Metrics
 - 4.3.2. KPI (Key Performance Indicators)
 - 4.3.3. Adequate Conversion Rates
- 4.4. Frequent Dimensions
 - 4.4.1. Source
 - 4.4.2. Medium
 - 4.4.3. Keyword
 - 4.4.4. Campaign
 - 4.4.5. Personalized Labelling
- 4.5. Setting up Google Analytics
 - 4.5.1. Installation. Creating the Account
 - 4.5.2. Versions of the Tool: UA/GA4
 - 4.5.3. Tracking Label
 - 4.5.4. Conversion Objectives
- 4.6. Organization of Google Analytics
 - 4.6.1. Account
 - 4.6.2. Property
 - 4.6.3. View
- 4.7. Google Analytics Reports
 - 4.7.1. In Real Time
 - 4.7.2. Audience
 - 4.7.3. Acquisition
 - 4.7.4. Behavior
 - 4.7.5. Conversions
 - 4.7.6. E-Commerce
- 4.8. Google Analytics Advanced Reports
 - 4.8.1. Personalized Reports
 - 4.8.2. Panels
 - 4.8.3. APIs

- 4.9. Filters and Segments
 - 4.9.1. Filter
 - 4.9.2. Segment
 - 4.9.3. Types of Segments: Predefined/Customized
 - 4.9.4. Remarketing Lists
- 4.10. Digital Analytics Plan
 - 4.10.1. Measurement
 - 4.10.2. Implementation in the Technological Environment
 - 4.10.3. Conclusions

Module 5. Scalable and Reliable Mass Data Usage Systems

- 5.1. Scalability, Reliability and Maintainability
 - 5.1.1. Scales
 - 5.1.2. Reliability
 - 5.1.3. Maintainability
- 5.2. Data Models
 - 5.2.1. Evolution of Data Models
 - 5.2.2. Comparison of Relational Model with Document-Based NoSQL Model
 - 5.2.3. Network Model
- 5.3. Data Storage and Retrieval Engines
 - 5.3.1. Structured Log Storage
 - 5.3.2. Storage in Segment Tables
 - 5.3.3. Trees B
- 5.4. Services, Message Passing and Data Encoding Formats
 - 5.4.1. Data Flow in REST Services
 - 5.4.2. Data Flow in Message Passing
 - 5.4.3. Message Sending Formats
- 5.5. Replication
 - 5.5.1. CAP Theorem
 - 5.5.2. Consistency Models
 - 5.5.3. Models of Replication Based on Leader and Follower Concepts

- 5.6. Distributed Transactions
 - 5.6.1. Atomic Operations
 - 5.6.2. Distributed Transactions from Different Approaches Calvin, Spanner
 - 5.6.3. Serializability
- 5.7. Partitions
 - 5.7.1. Types of Partitions
 - 5.7.2. Indexes in Partitions
 - 5.7.3. Partition Rebalancing
- 5.8. Batch Processing
 - 5.8.1. Batch Processing
 - 5.8.2. MapReduce
 - 5.8.3. Post-MapReduce Approaches
- 5.9. Data Stream Processing
 - 5.9.1. Messaging Systems
 - 5.9.2. Persistence of Data Flows
 - 5.9.3. Uses and Operations with Data Flows
- 5.10. Case Uses. Twitter, Facebook, Uber
 - 5.10.1. Twitter: The Use of Caches
 - 5.10.2. Facebook: Non-Relational Models
 - 5.10.3. Uber: Different Models for Different Purposes

Module 6. System Administration for Distributed Deployments

- 6.1. Classic Administration. The Monolithic Model
 - 6.1.1. Classical Applications. The Monolithic Model
 - 6.1.2. System Requirements for Monolithic Applications
 - 6.1.3. The Administration of Monolithic Systems
 - 6.1.4. Automation
- 6.2. Distributed Applications. The Microservice
 - 6.2.1. Distributed Computing Paradigm
 - 6.2.2. Microservices-Based Models
 - 6.2.3. System Requirements for Distributed Models
 - 6.2.4. Monolithic Applications vs. Distributed Applications

- 6.3. Tools for Resource Exploitation
 - 6.3.1. "Iron" Management
 - 6.3.2. Virtualization
 - 6.3.3. Emulation
 - 6.3.4. Paravirtualization
- 6.4. IaaS, PaaS and SaaS Models
 - 6.4.1. IaaS Model
 - 6.4.2. PaaS Model
 - 6.4.3. SaaS Model
 - 6.4.4. Design Patterns
- 6.5. Containerization
 - 6.5.1. Virtualization with Cgroups
 - 6.5.2. Containers
 - 6.5.3. From Application to Container
 - 6.5.4. Container Orchestration
- 6.6. Clustering
 - 6.6.1. High Performance and High Availability
 - 6.6.2. High Availability Models
 - 6.6.3. Cluster as SaaS Platform
 - 6.6.4. Cluster Securitization
- 6.7. Cloud Computing
 - 6.7.1. Clusters vs Clouds
 - 6.7.2. Types of Clouds
 - 6.7.3. Cloud Service Models
 - 6.7.4. Oversubscription
- 6.8. Monitoring and Testing
 - 6.8.1. Types of Monitoring
 - 6.8.2. Visualization
 - 6.8.3. Infrastructure Tests
 - 6.8.4. Chaos Engineering



- 6.9. Study Case: Kubernetes
 - 6.9.1. Structure
 - 6.9.2. Administration
 - 6.9.3. Deployment of Services
 - 6.9.4. Development of Services for K8S
- 6.10. Study Case: OpenStack
 - 6.10.1. Structure
 - 6.10.2. Administration
 - 6.10.3. Deployment
 - 6.10.4. Development of Services for OpenStack

Module 7. Internet of Things

- 7.1. Internet of Things (IoT)
 - 7.1.1. The Internet of the Future
 - 7.1.2. Internet of Things and Industrial Internet of Things
 - 7.1.3. The Industrial Internet Consortium
- 7.2. Architecture of Reference
 - 7.2.1. The Architecture of Reference
 - 7.2.2. Layers and Components
- 7.3. IoT Devices
 - 7.3.1. Classification
 - 7.3.2. Components
 - 7.3.3. Sensors and Actuators
- 7.4. Communication Protocols
 - 7.4.1. Classification
 - 7.4.2. OSI Model
 - 7.4.3. Technologies
- 7.5. IoT and IIoT platforms
 - 7.5.1. The IoT Platform
 - 7.5.2. General Purpose Cloud Platforms
 - 7.5.3. Industrial Platforms
 - 7.5.4. Open Code Platforms

- 7.6. Data Management on IoT Platforms
 - 7.6.1. Management Mechanisms
 - 7.6.2. Open Data
 - 7.6.3. Exchange of Data
 - 7.6.4. Data Visualization
- 7.7. IoT Security
 - 7.7.1. Security Requirements
 - 7.7.2. Security Areas
 - 7.7.3. Security Strategies
 - 7.7.4. IIoT Security
- 7.8. IoT Systems Application Areas
 - 7.8.1. Intelligent Cities
 - 7.8.2. Health and Fitness
 - 7.8.3. Smart Home
 - 7.8.4. Other Applications
- 7.9. Application of IIoT to Different Industrial Sectors
 - 7.9.1. Fabrication
 - 7.9.2. Transport
 - 7.9.3. Energy
 - 7.9.4. Agriculture and Livestock
 - 7.9.5. Other Sectors
- 7.10. Integration of IIoT in the Industry 4.0 Model
 - 7.10.1. IoRT (Internet of Robotics Things)
 - 7.10.2. 3D Additive Manufacturing
 - 7.10.3. Big Data Analytics

Module 8. Project Management and Agile Methodologies

- 8.1. Project Management
 - 8.1.1. The Project
 - 8.1.2. Phases of a Project
 - 8.1.3. Project Management
- 8.2. PMI Methodology for Project Management
 - 8.2.1. PMI (Project Management Institute)
 - 8.2.2. PMBOK
 - 8.2.3. Difference between Project, Program and Project Portfolio
 - 8.2.4. Evolution of Organizations Working with Projects
 - 8.2.5. Process Assets in Organizations
- 8.3. PMI Methodology for Project Management: Process
 - 8.3.1. Groups of Processes
 - 8.3.2. Knowledge Areas
 - 8.3.3. Process Matrix
- 8.4. Agile Methodologies for Project Management
 - 8.4.1. VUCA Context (Volatility, Uncertainty, Complexity and Ambiguity)
 - 8.4.2. Agile Values
 - 8.4.3. Principles of the Agile Manifesto
- 8.5. Agile SCRUM Framework for Project Management
 - 8.5.1. Scrum
 - 8.5.2. The Pillars of the Scrum Methodology
 - 8.5.3. The Values in Scrum
- 8.6. Agile SCRUM Framework for Project Management Process
 - 8.6.1. The Scrum Process
 - 8.6.2. Typified Roles in a Scrum Process
 - 8.6.3. The Ceremonies of Scrum
- 8.7. Agile SCRUM Framework for Project Management Artifacts
 - 8.7.1. Artefacts in the Scrum Process
 - 8.7.2. The Scrum Team
 - 8.7.3. Metrics for Evaluating the Performance of a Scrum Team

- 8.8. Agile KANBAN Framework for Project Management. Kanban Method
 - 8.8.1. Kanban
 - 8.8.2. Benefits of Kanban
 - 8.8.3. Kanban Method Components
- 8.9. Agile KANBAN Framework for Project Management. Kanban Method Practices
 - 8.9.1. The Values of Kanban
 - 8.9.2. Principles of the Kanban Method
 - 8.9.3. General Practices of the Kanban Method
 - 8.9.4. Metrics for Kanban Performance Evaluation
- 8.10. Comparison: PMI, SCRUM y KANBAN
 - 8.10.1. PMI – SCRUM
 - 8.10.2. PMI – KANBAN
 - 8.10.3. SCRUM – KANBAN

Module 9. Communication, Leadership and Team Management

- 9.1. Organizational Development in Business
 - 9.1.1. Climate, Culture and Organizational Development in the Company
 - 9.1.2. Human Capital Management
- 9.2. Direction Models Decision Making
 - 9.2.1. Paradigm Shift in Management Models
 - 9.2.2. Management Process of the Technology Company
 - 9.2.3. Decision-Making. Planning Instruments
- 9.3. Leadership Delegation and Empowerment
 - 9.3.1. Leadership
 - 9.3.2. Delegation and Empowerment
 - 9.3.3. Performance Evaluation
- 9.4. Leadership Knowledge and Talent Management
 - 9.4.1. Talent Management in the Company
 - 9.4.2. Engagement Management in the Company
 - 9.4.3. Improving Communication in the Company
- 9.5. Coaching Applied to Business
 - 9.5.1. Executive Coaching
 - 9.5.2. Team Coaching
- 9.6. Mentoring Applied to Business
 - 9.6.1. Mentor Profile
 - 9.6.2. The 4 Processes of a Mentoring Program
 - 9.6.3. Tools and Techniques in a Mentoring Process
 - 9.6.4. Benefits of Mentoring in the Business Environment
- 9.7. Team Management I. Interpersonal Relations
 - 9.7.1. Interpersonal Relationships
 - 9.7.1.1. Relational Styles: Focuses
 - 9.7.1.2. Effective Meetings and Agreements in Difficult Situations
- 9.8. Team Management II. The Conflicts
 - 9.8.1. The Conflicts
 - 9.8.2. Preventing, Addressing and Resolving Conflict
 - 9.8.2.1. Strategies to Prevent Conflict
 - 9.8.2.2. Conflict Management. Basic Principles
 - 9.8.2.3. Conflict Resolution Strategies
 - 9.8.3. Stress and Work Motivation
- 9.9. Team Management III. Negotiation
 - 9.9.1. Negotiation at the Managerial Level in Technology Companies
 - 9.9.2. Styles of Negotiation
 - 9.9.3. Negotiation Phases
 - 9.9.3.1. Barriers to Overcome in Negotiations
- 9.10. Team Management IV. Negotiation Techniques
 - 9.10.1. Negotiation Techniques and Strategies
 - 9.10.1.1. Strategies and Main Types of Negotiation
 - 9.10.1.2. Negotiation Tactics and Practical Issues
 - 9.10.2. The Figure of the Negotiating Subject

Module 10. Leadership, Ethics and Social Responsibility in Companies

- 10.1. Globalization and Governance
 - 10.1.1. Governance and Corporate Governance
 - 10.1.2. The Fundamentals of Corporate Governance in Companies
 - 10.1.3. The Role of the Board of Directors in the Corporate Governance Framework
- 10.2. Leadership
 - 10.2.1. Leadership A Conceptual Approach
 - 10.2.2. Leadership in Companies
 - 10.2.3. The Importance of Leaders in Business Management
- 10.3. Cross Cultural Management
 - 10.3.1. Cross Cultural Management Concept
 - 10.3.2. Contributions to Knowledge of National Cultures
 - 10.3.3. Diversity Management
- 10.4. Management and Leadership Development
 - 10.4.1. Concept of Management Development
 - 10.4.2. Concept of Leadership
 - 10.4.3. Leadership Theories
 - 10.4.4. Leadership Styles
 - 10.4.5. Intelligence in Leadership
 - 10.4.6. The Challenges of Today's Leader
- 10.5. Business Ethics
 - 10.5.1. Ethics and Morality
 - 10.5.2. Business Ethics
 - 10.5.3. Leadership and Ethics in Companies
- 10.6. Sustainability
 - 10.6.1. Sustainability and Sustainable Development
 - 10.6.2. The 2030 Agenda
 - 10.6.3. Sustainable Companies





- 10.7. Corporate Social Responsibility
 - 10.7.1. International Dimensions of Corporate Social Responsibility
 - 10.7.2. Implementing Corporate Social Responsibility
 - 10.7.3. The Impact and Measurement of Corporate Social Responsibility
- 10.8. Responsible Management Systems and Tools
 - 10.8.1. CSR: Corporate Social Responsibility
 - 10.8.2. Essential Aspects for Implementing a Responsible Management Strategy
 - 10.8.3. Steps for the Implementation of a Corporate Social Responsibility Management System
 - 10.8.4. CSR Tools and Standards
- 10.9. Multinationals and Human Rights
 - 10.9.1. Globalization, Multinational Companies and Human Rights
 - 10.9.2. Multinational Corporations and International Law
 - 10.9.3. Legal Instruments for Multinationals in the Area of Human Rights
- 10.10. Legal Environment and Corporate Governance
 - 10.10.1. International Rules on Importation and Exportation
 - 10.10.2. Intellectual and Industrial Property
 - 10.10.3. International Labor Law

Module 11. People and Talent Management

- 11.1. Strategic People Management
 - 11.1.1. Strategic Human Resources Management
 - 11.1.2. Strategic People Management
- 11.2. Human Resources Management by Competencies
 - 11.2.1. Analysis of the Potential
 - 11.2.2. Remuneration Policy
 - 11.2.3. Career/Succession Planning
- 11.3. Performance Evaluation and Performance Management
 - 11.3.1. Performance Management
 - 11.3.2. Performance Management: Objectives and Process

- 11.4. Innovation in Talent and People Management
 - 11.4.1. Strategic Talent Management Models
 - 11.4.2. Talent Identification, Training and Development
 - 11.4.3. Loyalty and Retention
 - 11.4.4. Proactivity and Innovation
- 11.5. Motivation
 - 11.5.1. The Nature of Motivation
 - 11.5.2. Expectations Theory
 - 11.5.3. Needs Theory
 - 11.5.4. Motivation and Financial Compensation
- 11.6. Developing High Performance Teams
 - 11.6.1. High-Performance Teams: Self-Managed Teams
 - 11.6.2. Methodologies for the Management of High Performance Self-Managed Teams
- 11.7. Change Management
 - 11.7.1. Change Management
 - 11.7.2. Type of Change Management Processes
 - 11.7.3. Stages or Phases in the Change Management Process
- 11.8. Negotiation and Conflict Management
 - 11.8.1. Negotiation
 - 11.8.2. Conflict Management
 - 11.8.3. Crisis Management
- 11.9. Executive Communication
 - 11.9.1. Internal and External Communication in the Corporate Environment
 - 11.9.2. Communication Departments
 - 11.9.3. The Person in Charge of Communication of the Company The Profile of the Dircom
- 11.10. Productivity, Attraction, Retention and Activation of Talent
 - 11.10.1. Productivity
 - 11.10.2. Talent Attraction and Retention Levers

Module 12. Economic and Financial Management

- 12.1. Economic Environment
 - 12.1.1. Macroeconomic Environment and the National Financial System
 - 12.1.2. Financial Institutions
 - 12.1.3. Financial Markets
 - 12.1.4. Financial Assets
 - 12.1.5. Other Financial Sector Entities
- 12.2. Executive Accounting
 - 12.2.1. Basic Concepts
 - 12.2.2. The Company's Assets
 - 12.2.3. The Company's Liabilities
 - 12.2.4. The Company's Net Worth
 - 12.2.5. The Income Statement
- 12.3. Information Systems and Business Intelligence
 - 12.3.1. Fundamentals and Classification
 - 12.3.2. Cost Allocation Phases and Methods
 - 12.3.3. Choice of Cost Center and Impact
- 12.4. Budget and Management Control
 - 12.4.1. The Budget Model
 - 12.4.2. The Capital Budget
 - 12.4.3. The Operating Budget
 - 12.4.5. Treasury Budget
 - 12.4.6. Budget Monitoring

- 12.5. Financial Management
 - 12.5.1. The Company's Financial Decisions
 - 12.5.2. Financial Department
 - 12.5.3. Cash Surpluses
 - 12.5.4. Risks Associated with Financial Management
 - 12.5.5. Financial Administration Risk Management
- 12.6. Financial Planning
 - 12.6.1. Definition of Financial Planning
 - 12.6.2. Actions to be Taken in Financial Planning
 - 12.6.3. Creation and Establishment of the Business Strategy
 - 12.6.4. The Cash Flow Table
 - 12.6.5. The Working Capital Table
- 12.7. Corporate Financial Strategy
 - 12.7.1. Corporate Strategy and Sources of Financing
 - 12.7.2. Financial Products for Corporate Financing
- 12.8. Strategic Financing
 - 12.8.1. Self-Financing
 - 12.8.2. Increase in Equity
 - 12.8.3. Hybrid Resources
 - 12.8.4. Financing Through Intermediaries
- 12.9. Financial Analysis and Planning
 - 12.9.1. Analysis of the Balance Sheet
 - 12.9.2. Analysis of the Income Statement
 - 12.9.3. Profitability Analysis
- 12.10. Analyzing and Solving Cases/Problems
 - 12.10.1. Financial Information on Industria de Diseño y Textil, S.A. (INDITEX)

Module 13. Commercial and Strategic Marketing Management

- 13.1. Commercial Management
 - 13.1.1. Conceptual Framework of Commercial Management
 - 13.1.2. Business Strategy and Planning
 - 13.1.3. The Role of Sales Managers
- 13.2. Marketing
 - 13.2.1. The Concept of Marketing
 - 13.2.2. Basic Elements of Marketing
 - 13.2.3. Marketing Activities of the Company
- 13.3. Strategic Marketing Management
 - 13.3.1. The Concept of Strategic Marketing
 - 13.3.2. Concept of Strategic Marketing Planning
 - 13.3.3. Stages in the Process of Strategic Marketing Planning
- 13.4. Digital Marketing and e-Commerce
 - 13.4.1. Digital Marketing and E-commerce Objectives
 - 13.4.2. Digital Marketing and Media Used
 - 13.4.3. E-Commerce General Context
 - 13.4.4. Categories of E-commerce
 - 13.4.5. Advantages and Disadvantages of E-commerce Versus Traditional Commerce
- 13.5. Digital Marketing to Reinforce a Brand
 - 13.5.1. Online Strategies to Improve Your Brand's Reputation
 - 13.5.2. Branded Content and Storytelling
- 13.6. Digital Marketing to Attract and Retain Customers
 - 13.6.1. Loyalty and Engagement Strategies through the Internet
 - 13.6.2. Visitor Relationship Management
 - 13.6.3. Hypersegmentation
- 13.7. Managing Digital Campaigns
 - 13.7.1. What is a Digital Advertising Campaign?
 - 13.7.2. Steps to Launch an Online Marketing Campaign
 - 13.7.3. Mistakes in Digital Advertising Campaigns
- 13.8. Sales Strategy
 - 13.8.1. Sales Strategy
 - 13.8.2. Sales Methods

- 13.9. Corporate Communication
 - 13.9.1. Concept
 - 13.9.2. The Importance of Communication in the Organization
 - 13.9.3. Type of Communication in the Organization
 - 13.9.4. Functions of Communication in the Organization
 - 13.9.5. Elements of Communication
 - 13.9.6. Communication Problems
 - 13.9.7. Communication Scenarios
- 13.10. Digital Communication and Reputation
 - 13.10.1. Online Reputation
 - 13.10.2. How to Measure Digital Reputation?
 - 13.10.3. Online Reputation Tools
 - 13.10.4. Online Reputation Report
 - 13.10.5. Online Branding

Module 14. Executive Management

- 14.1. General Management
 - 14.1.1. The Concept of General Management
 - 14.1.2. The Role of the CEO
 - 14.1.3. The CEO and their Responsibilities
 - 14.1.4. Transforming the Work of Management
- 14.2. Manager Functions: Organizational Culture and Approaches
 - 14.2.1. Manager Functions: Organizational Culture and Approaches
- 14.3. Operations Management
 - 14.3.1. The Importance of Management
 - 14.3.2. Value Chain
 - 14.3.3. Quality Management
- 14.4. Public Speaking and Spokesperson Education
 - 14.4.1. Interpersonal Communication
 - 14.4.2. Communication Skills and Influence
 - 14.4.3. Communication Barriers
- 14.5. Personal and Organizational Communications Tools
 - 14.5.1. Interpersonal Communication
 - 14.5.2. Interpersonal Communication Tools
 - 14.5.3. Communication in the Organization
 - 14.5.4. Tools in the Organization



- 14.6. Communication in Crisis Situations
 - 14.6.1. Crisis
 - 14.6.2. Phases of the Crisis
 - 14.6.3. Messages: Contents and Moments
- 14.7. Preparation of a Crisis Plan
 - 14.7.1. Analysis of Possible Problems
 - 14.7.2. Planning
 - 14.7.3. Adequacy of Personnel
- 14.8. Emotional Intelligence
 - 14.8.1. Emotional Intelligence and Communication
 - 14.8.2. Assertiveness, Empathy, and Active Listening
 - 14.8.3. Self-Esteem and Emotional Communication
- 14.9. Personal Branding
 - 14.9.1. Strategies for Personal Brand Development
 - 14.9.2. Personal Branding Laws
 - 14.9.3. Tools for Creating Personal Brands
- 14.10. Leadership and Team Management
 - 14.10.1. Leadership and Leadership Styles
 - 14.10.2. Leader Capabilities and Challenges
 - 14.10.3. Managing Change Processes
 - 14.10.4. Managing Multicultural Teams

“

A unique specialization program that stands out due to the quality of its contents and its excellent teaching staff”

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 has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. 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 course, students 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 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

This MBA in Corporate Technical Data Science Management 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 **MBA in Corporate Technical Data Science Management** contains the most complete and up-to-dated 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*.

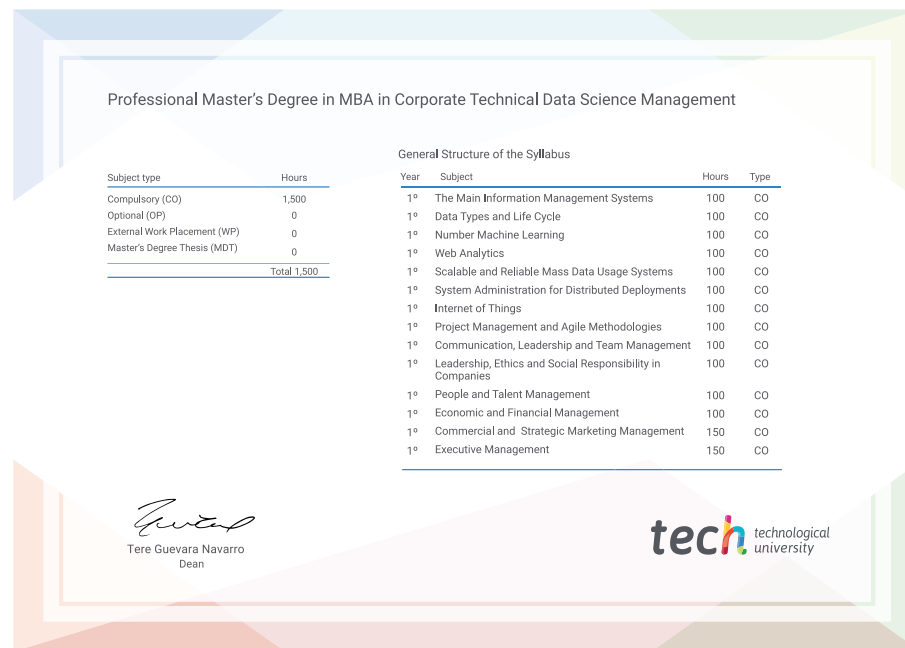
The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Professional Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Professional Master's Degree MBA in Corporate Technical Data Science Management**

Official N° of hours: **1,500 h.**

Modality: **online**

Duration: **12 months**



*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.

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



Professional Master's Degree

MBA in Corporate
Technical Data Science
Management

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online

Professional Master's Degree

MBA in Corporate Technical Data Science Management