

ENEB

Empowering the
best leaders

Academic Brochure



European Business School of Barcelona

In collaboration with:



Cum Laude
Award 2023:



Welcome to ENEB

The World's Leading Business School

We are dedicated to transforming lives through high-quality education. Recognized as the #1 business school by Innovatec for our technological innovation, we offer a dynamic and engaging learning environment designed to equip you with the skills to succeed in today's competitive world.



Why ENEB?

ENEB - European Business School of Barcelona stands out as a leading institution in online education specializing in master's and postgraduate programs designed to boost your career on a global scale. With a strong international presence and courses offered in Spanish, English, and Portuguese, ENEB positions itself as the perfect choice for those seeking educational excellence without borders.

All educational programs offered by ENEB grant University Certification as they are endorsed and certified by the Isabel I University, thus validating the quality and recognition of your education internationally. Upon completing your studies, you will be eligible to receive ECTS (European Credit Transfer System).

MAIN PARTNERS



TECH PARTNERS



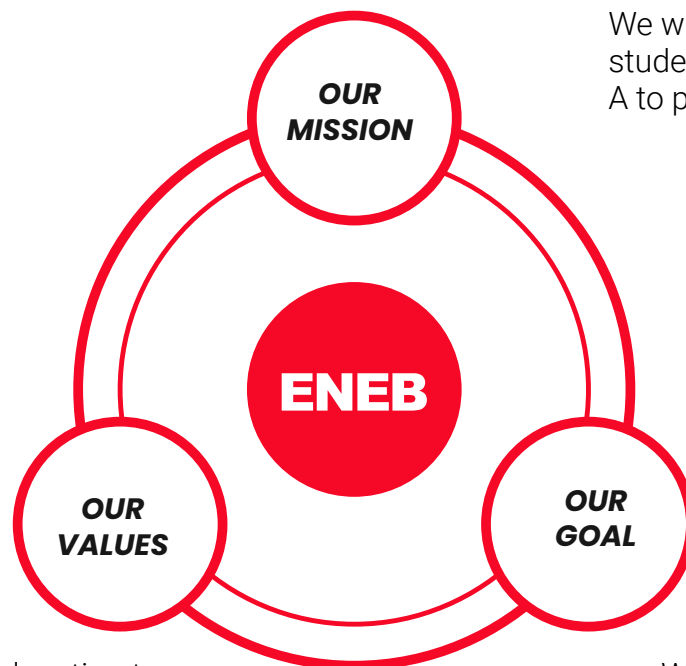
+ 100 PARTNERS





You are our mission, our values and our goals

Our mission at ENEB is to transform your life, empowering you to choose your own path and dedicate your time to what you are most passionate about, with no limits to achieving your goals. We envision ourselves as the gateway to your life objectives, offering accessible, top-quality education for everyone. We are committed to ensuring no talent is left behind and to making a positive impact on society. With over 19,000 students annually, we feel a profound responsibility to make a real difference.



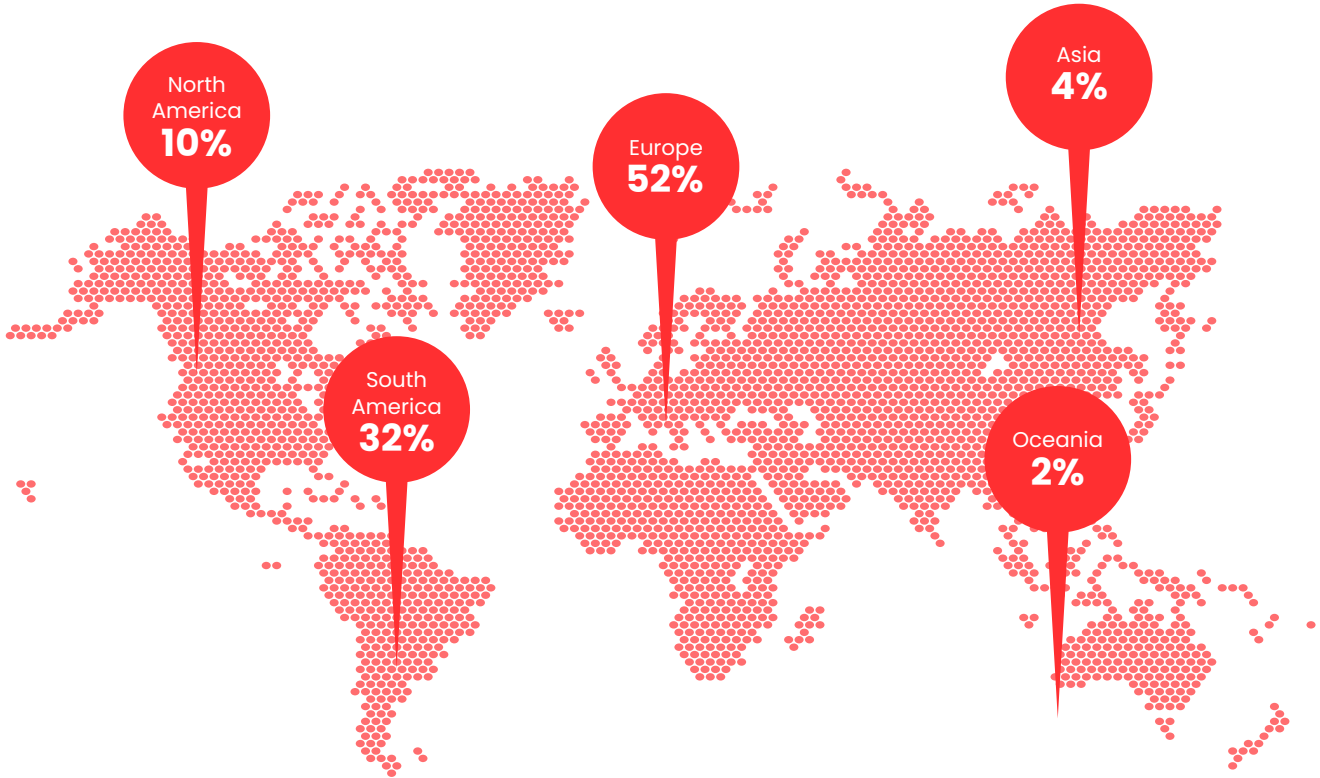
We want to transform our students' lives, from point A to point E.

We aim to provide education to everyone who truly desires it. We strive to break barriers because we believe that top-tier education should be accessible to all, not just a select few.

With over 19,000 students each year, we feel a profound responsibility to make a meaningful impact on society.

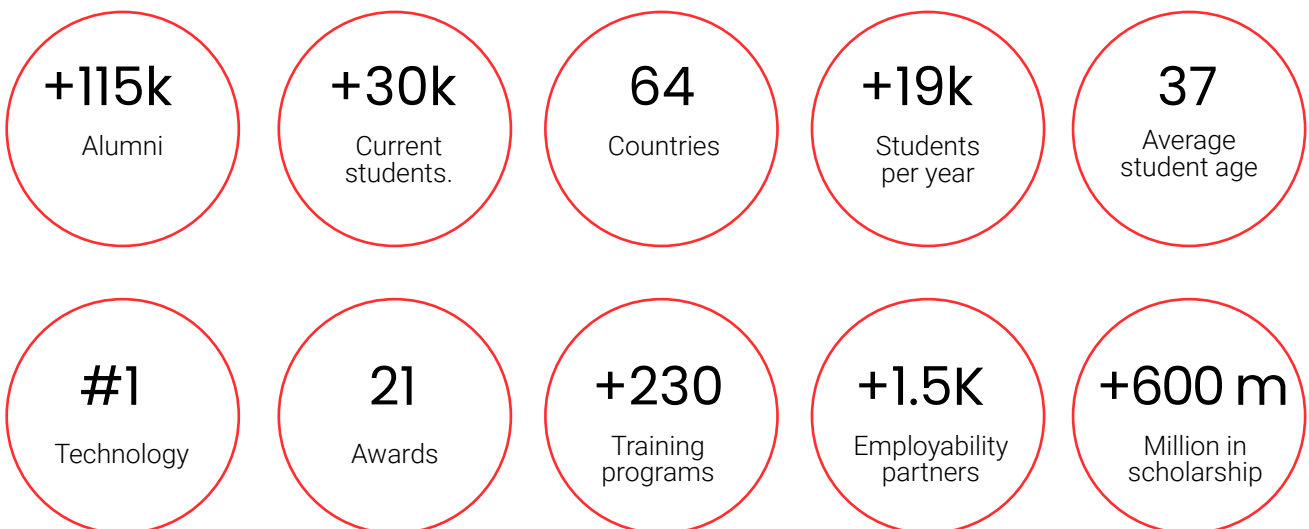
ENEB in the world

At ENEB, each country represents not just a new territory, but a fresh opportunity to transform the world. Over 150,000 students across 125 countries have wisely chosen ENEB to shape their future and make a global impact.





ENEB in Numbers

Numbers are not just figures; they are the result of our relentless effort and dedication. At ENEB, our impressive stats reflect our commitment to excellence and our global impact on education and transformation.



Accreditations

All the certificates of our training programmes are issued by ENEB Business School and certified by the Universidad Isabel I, which belongs to the European Higher Education Area guaranteeing the homogeneity and quality of the training. ENEB master's and postgraduate programs have the highest recognitions, approvals and homologations that guarantee the educational quality of their content. They are highly valued professional trainings in the field of each of the different areas of knowledge. The homologations, accreditations, memberships, certifications, registrations and recognitions of ENEB are the following:

 <p>All our training programmes are certified by Universidad Isabel I.</p>	 <p>Collaboration with IEE, for validations in USA and Canada.</p>	 <p>Member of the Spanish Confederation of Private Centres and Academies.</p>
 <p>Member of the Spanish National Association of e-Learning and Distance Learning Centres</p>	 <p>Collaborating Centre of the Trinity College London.</p>	 <p>Quality and excellence certification with the highest score issued by the European Foundation for Quality Management.</p>
 <p>Certificate of educational excellence established</p>	 <p>Member of the Barcelona Chamber of Commerce</p>	 <p>Best business school rated by its students.</p>
 <p>Registered trademark with the number 3,543,757 within class 41 of Education and Training.</p>	 <p>Associated to the Latin American Council of Management Schools</p>	 <p>Asociación Española de Escuelas de Negocios</p> <p>Associated with the Asociación Española de Escuelas de Negocios.</p>

Remote learning

ENEB's training programs are 100% online and includes manuals, daily and voluntary live classes in the ENEB Metaverse, multimedia resources, forums, and debates within the ENEB community, as well as tutoring from Monday to Sunday.



Evaluation is done through the presentation of a final assignment per subject, after passing self-assessments. These self-assessments do not affect your final grade but help you measure your progress in learning. Final assignments are evaluated and corrected by the team of tutors and professors. There are no final tests or theoretical exams.

Flexibility is not only reflected in the delivery of assignments but also in the adaptability of the program to your needs. You can follow the order of subjects that best suits your time, needs, or concerns.

ENEB has a complete team of tutors available 7 days a week to guide and advise you on practical cases, ensuring your success in each subject.

A red banner with four white icons and labels. From left to right: a clock icon with a circular arrow labeled 'Flexible'; an icon of three people with a hand labeled 'Customised'; an open padlock icon labeled 'Accessible'; and a laptop icon with a graduation cap labeled 'Online'.



Our Methodology

At ENEB, you learn by making decisions through Harvard-backed case studies, guided by 200+ active professionals, all within our immersive Metaverse campus. Rather than focusing on memorizing information, we place the emphasis on preparing you for real-world business decisions.



SPECIAL PROGRAMS

“The Food Truck Challenge”

Simulator in which you will manage a successful food truck in the city of Boomtown.

You will work in teams to make decisions, after each decision there will be a debriefing and the decisions made and results obtained by each team will be discussed.

With content from Harvard Business Publishing Education.





Live Classes in the Metaverse

Our synchronous live classes are held from Monday to Thursday through the ENEB Metaverse (NUBI). These classes feature the participation of experts in various educational areas. The schedule of classes may vary depending on the availability of speakers, but you will always have access to the updated calendar several weeks in advance.

Although attendance at these classes is not mandatory, they are highly recommended as they offer an interactive and practical experience on the most relevant topics of the business world in all its dimensions.

If you are unable to attend a live class, do not worry. All sessions are recorded and available on the virtual campus shortly after they take place, so you can access them at any time that suits you.

Flexible Learning

24/365 Access

Study at your own pace with our flexible 24/365 methodology. Whether you are a busy professional or managing other commitments, our programs are designed to fit into your life. You can start and complete your studies at your convenience, ensuring a stress-free and adaptable learning experience.

Self-Assessment and Practical Assignments

Evaluation is done through the presentation of final assignments per subject, following self-assessments that help you measure your progress. Our flexible approach allows you to follow the order of subjects that best suits your time and needs.

Calendar

All our Masters, Management Development Programs and Advanced Courses have a flexible start date, i.e. they begin when you wish and inform us. The duration of each of them will depend on the number of credits, ranging from 1 month for the Higher Education Courses, 5 months for the Executive Courses, 9 months for the Masters, 12 months for the Double Masters and 14 months for the Global MBA.

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Thanks to our
7/24
Method

we will answer all your questions and doubts every day of the year through the Virtual Campus.



What we offer:

- Welcome sessions
- Live classes from Monday to Thursday in our NUBI metaverse with active professionals
- Academic Q&A with our Secretary team in the metaverse
- Possibility of internships in companies
- Partnerships with other schools and businesses
- Registration in our job bank
- Networking opportunities and access to the ENEB Community
- Student card



Class President

As part of ENEB's commitment and excellence to students around the world, all programs have Class Presidents who not only are primary guides and supporters within the institution, but also key figures in fostering a robust networking network designed to expand your professional and academic opportunities.

All students are invited to connect with them to stay abreast of the latest developments and opportunities in our academic community. These leaders will offer you valuable resources and strategic advice to maximize your potential for employability and academic success.

Connect, collaborate and grow with us!



Saqib Achakzai

MBA

Senior Manager at Deloitte in London, he is a chartered accountant with more than fifteen years of experience in financial services. His experience includes business transformation, regulatory compliance and financial audits for clients in the UK, US and Middle East.



Richard Overton

MBA + Master in Project Management

Chief Engineer with over 29 years of manufacturing and business management experience. Specialized in operational efficiency, safety standards and team leadership. Expert in methodologies such as FMECA, DMAIC, 5S and TPM. Known for driving efficiency and leading goal-focused teams.



Roner Chichirita

MBA + Master in Big Data and Business Intelligence

A nurse from the Philippines working in a major German hospital, he is pursuing an MBA and a master's degree in Big Data and Business Intelligence at ENEB. His goal as Class President is to improve his leadership skills and help students. In addition, he works as a tax advisor for the Filipino community in Hamburg and enjoys building IKEA furniture and creating websites as a hobby.



Steven Poole

MBA + Master in Logistics

Steven Poole is a recognized leader in the Australian rail industry with more than 20 years of experience. He is currently a principal investigator at Australia's largest rail operator, where he has achieved notable reductions in workplace safety incidents and injuries, as well as significant improvements in staff performance and management.



Samir Bouazzi

MBA + Master in Team Management

An experienced IT, sales and business development professional, he holds a degree in Computer Science from Tunisia. He has managed projects on all continents and currently works as a Section Supervisor at Darwish Holding in Qatar, driving sales growth and fostering team excellence. His commitment to customer satisfaction, innovative strategies and team development make him a valuable professional to be Class President.



What do we expect from students

Success is the result of constant effort. There are no shortcuts to excellence. Dedicate yourself fully to each task and project, and the results will speak for themselves.



-  Active Participation
-  Visible Presence
-  Maximize Opportunities
-  Perseverance
-  Community Creation
-  Active Networking
-  Exemplary Leadership
-  Constant Effort

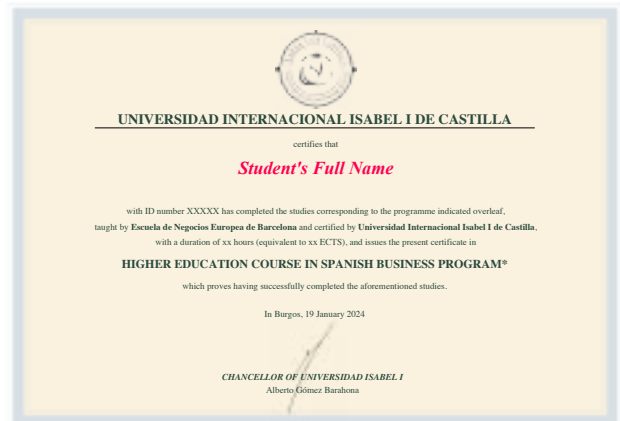
"I couldn't be happier with my studies at ENEB. The online platform includes current content applicable to real-life scenarios, and the quality of the master's degree exceeded all my expectations."



"I'm impressed with the professionalism and dedication of the entire team of the school. From faculty members to administrative staff, every interaction and aspect of my experience has been excellent."

Certifications

Here is an example of the certificates by ENEB and the University Isabel I that may be issued depending on your program of study.



Certificate of completion



Internship program

ENEB Business School is recognised by the most prestigious companies in different sectors. Its training programs, adapted to the current reality of the labour market, will allow you to get on perfectly in any company or organization and to develop a promising career. To make that possible, the school has an agreement with renowned business firms and an employment program where students can access more than 14,000 national and international job offers.

In its pursuit to promote the labour insertion of the students, ENEB Business School, among its free services, offers the possibility of undertaking internships in companies as a complement to their training plan. The objective of this internship, established through a Private Collaboration Agreement between the school and the company, is to allow training in work centres that reproduce the usual conditions of the business environment as part of their training plan.

We provide effective solutions to the growing training needs requested by companies for their future employees. We have an avant-garde research department to update and adapt new trends to the current market as well as a networking space for the meeting of students, managers, professionals, academic experts and entrepreneurs who want to exchange experiences and opinions. Below are some of the companies and organizations where our internships take place:



International character

In addition, all the students focused on international business, business sciences, management, business administration and management, can apply for an international internship through our partners Worldwide Internships and Pic-Management in the United States, Mexico, Dominican Republic, Spain, France, Thailand, China, Malaysia, United Arab Emirates and New Zealand, among others.




Job Opportunities

ENEB Business School is recognized by the most prestigious companies in different sectors. Its training programs, adapted to the current reality of the working world, allow students to grow professionally and climb their career ladder in any company.

To make this possible, ENEB Business School has an agreement with major business firms and employment exchanges with more than 14,000 offers available to its students within the business environment. Registration is optional, and we maintain the strictest confidentiality according to the Personal Data Protection Law in compliance with the European Regulation of Data Protection RGPD 2016/679 and RD of development 1720/2007.

Our team will advise our students on the adaptation of their curriculum and cover letters to ensure their employability in selection processes.



Scholarships and grants

ENEB has limited places available for each of the scholarships aimed at all Master's Degree and Management Development Program students who meet the following requirements:

Direct Scholarship: Without requirements or limitations in each enrollment period. Get your Direct Scholarship now without administrative procedures.

Scholarship for Academic Excellence: Intended for those students whose academic and professional qualifications have a profile of excellence.

Entrepreneurial Talent Scholarship: Designed for all those entrepreneurs who wish to study a Master's or Postgraduate degree in order to apply it to their professional career.

Women and Equality Scholarship: Designed for female candidates who want to grow professionally and achieve the highest level of education. In ENEB, we are committed to gender equality and we encourage woman's integration into the workforce..

Management Scholarship: Intended for all those professionals whose roles of responsibility requires them to continually grow and evolve..

Corporate Scholarship: Intended for all those professionals who want to boost their career and opt for higher positions.

Scholarship for self-employed professionals: Intended for self-employed professional who wish to pursue a Master's or Postgraduate degree to gain an in-depth knowledge of their sector or to acquire the necessary skills to grow their business.

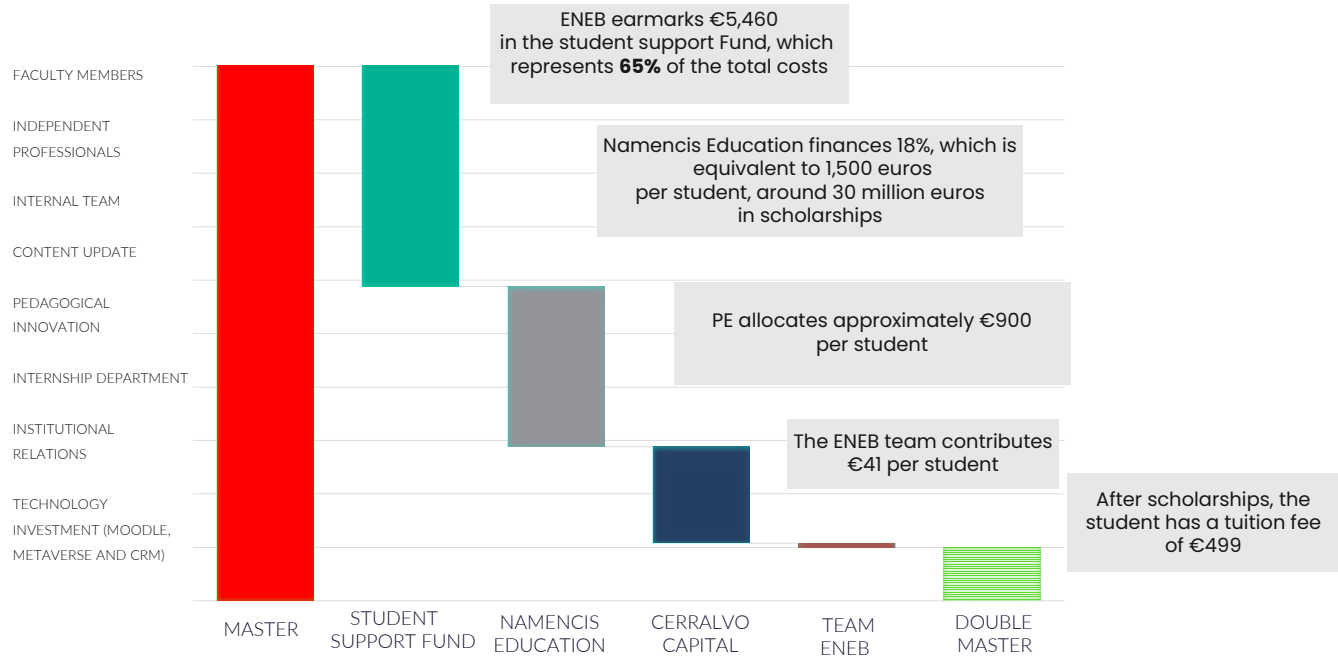
SMEs Scholarship: Designed for entrepreneurs who wish to increase their knowledge to contribute to the growth of their company.

Scholarship for the unemployed: Intended for all those who wish to pursue further studies in order to re-enter the job market.

Geographical Mobility Scholarship: Intended for all applicants who wish to study from anywhere in the world and thus, acquire a global view of the business world.

We are committed to making education accessible to everyone

At ENEB, we are dedicated to democratizing education through exceptional affordability and quality. Our commitment drives us to invest in creating opportunities for every student to thrive and excel, regardless of financial constraints.



“ENEb not only offered me the chance to complete my master’s degree at an unbeatable price but also provided the flexibility I needed to achieve my goals. This experience has truly transformed my life, opening doors to new opportunities and shaping my future in profound ways.”

“I found everything I needed at ENEb: quality content in a format that allowed me to balance work, personal life and study, and at a price I could afford.”



A photograph of two young women sitting on stone steps in front of a modern glass-walled building. The scene is captured at sunset, with a warm orange and red glow. The woman on the right is holding a tablet and looking at it, while the woman on the left looks on. A large, semi-transparent red circle is overlaid on the left side of the image. The text 'MASTER IN BIG DATA AND BUSINESS INTELLIGENCE + MASTER IN DIGITAL BUSINESS' is written in white, bold, uppercase letters across the bottom right of the image.

**MASTER IN BIG
DATA AND BUSINESS
INTELLIGENCE +
MASTER IN DIGITAL
BUSINESS**

INTRODUCTION

The Master in Big Data and Business Intelligence + Master in Digital Business is a training program that offers a unique combination of knowledge in two areas of great relevance for modern business management: data analysis and digital transformation. This program is designed to provide students with a deep understanding of the technologies and tools necessary for the effective management of large amounts of data, as well as the skills needed to lead digital transformation projects in any company.

Choose to train at ENEB, one of the most prominent distance business schools in Europe, allowing you to train at the highest level from anywhere, with daily support from all professors and tutors.

THREE DIPLOMAS

Upon completion of your studies, you will receive three diplomas issued by the European Business School of Barcelona, endorsed and certified by the University of Isabel I:

- Master in Big Data and Business Intelligence + Master in Digital Business
- Diploma of Specialization in Innovation and Project Management
- Business Spanish Program Certificate

All our training programs come with an optional Business Spanish course, which will enable you to navigate an international work environment. If you choose not to take it, you will receive a double certificate.

WHO IS IT FOR?

The Master in Big Data and Business Intelligence + Master in Digital Business is aimed at:

- University graduates with experience in the area of business management who wish to develop skills in data analysis and digital transformation.
- Business professionals who wish to improve their ability to make informed decisions through data analysis and the application of digital technologies.
- Business managers and directors who wish to lead digital transformation projects and improve the management of large amounts of data in their company.
- IT professionals interested in developing skills in data analytics and digital transformation to apply in their work.
- Entrepreneurs who wish to develop skills in data analytics and digital transformation to apply in the management of their own business.

OBJECTIVES

The curriculum of the Master in Big Data and Business Intelligence + Master in Digital Business aims to equip students with the following knowledge and skills:

- Provide students with a deep understanding of data analytics and digital transformation technologies and tools.
- Develop skills in the application of data analytics techniques for informed decision making.
- Provide students with skills to lead digital transformation projects in any enterprise.
- Foster critical and creative thinking to address complex business management problems.
- Develop communication and leadership skills to work in teams and lead digital transformation projects.
- Encourage the development of an international and multicultural perspective.
- Provide students with skills to manage large amounts of data in any type of company.
- Develop skills in the application of artificial intelligence and machine learning techniques.
- Provide students with a deep understanding of the ethical and legal implications of managing large amounts of data.
- Prepare students for future trends in business management.

CAREER OPPORTUNITIES

- **Data analyst:** In charge of collecting, processing and analyzing large amounts of data to extract relevant information for the company.
- **Digital transformation manager:** In charge of leading digital transformation projects in the company and developing and implementing digital strategies.
- **Digital business consultant:** In charge of advising companies on digital strategies, implementation of digital technologies and data analysis.

ADMISSION

To be eligible for any of our Master's programs, applicants must meet the following requirements:

- Hold a degree in any field (Bachelor's, Architecture, Higher or Technical Engineering, Licentiate, Diploma, or equivalent).
- University students currently pursuing a degree or equivalent higher education studies.
- Professionals with career prospects in their current positions.
- If you do not meet any of the above conditions, please contact the school, and the admissions department will evaluate your specific case.

YOUR MASTER INCLUDES:

- Master in Big Data and Business Intelligence + Master in Digital Business
- Diploma of Specialization in Innovation and Project Management
- Business Spanish Program Certificate
- Registration in our job bank

- Possibility of internships in companies
- Tutorials from Monday to Sunday
- 7" tablet as a gift

SECTION 1: BIG DATA

- Topic 1. Introduction to big data
- Topic 2. Big data in projects
- Topic 3. Agile methodologies
- Topic 4. Artificial Intelligence
- Topic 5. Use cases in industry

SECTION 2: BUSINESS INTELLIGENCE

- Topic 1. Introduction to business intelligence
- Topic 2. Business intelligence systems
- Topic 3. Design of reports, dashboards and KPIs
- Topic 4. Data sources
- Topic 5. Data quality

SECTION 3: DATA MANAGEMENT

- Topic 1. Open data
- Topic 2. Data management
- Topic 3. Data privacy
- Topic 4. Data storage
- Topic 5. Strategy and data

SECTION 4: PYTHON, CARTO, POWER BI AND GOOGLE DATA STUDIO

- Topic 1. Interpretation of data
- Topic 2. Interactive visualization with Python
- Topic 3. Introduction to Carto
- Topic 4. Microsoft Power BI
- Topic 5. Google Data Studio

SECTION 5: DATABASES

- Topic 1. Database fundamentals
- Topic 2. Database technology
- Topic 3. SQL Practice (MySQL)
- Topic 4. SQL Practice (MySQL)
- Topic 5. NoSQL practice (Hbase)
- Topic 6. Databases for networks
- Topic 7. Databases in the cloud

SECTION 6: DATA ANALYSIS AND INTERPRETATION

- Topic 1. Data representation
- Topic 2. Measurements
- Topic 3. Regression and correlation
- Topic 4. Probability
- Topic 5. Distributions
- Topic 6. Confidence intervals
- Topic 7. Introduction to Hypothesis Testing
- Topic 8. Statistics with R

SECTION 7: ARTIFICIAL INTELLIGENCE

- Topic 1. Introduction to data analysis with Python
- Topic 2. Introduction to machine learning
- Topic 3. Supervised machine learning
- Topic 4. Unsupervised machine learning
- Topic 5. Reinforcement learning
- Topic 6. Deep Learning Fundamentals

SECTION 8: STORAGE TECHNOLOGIES FOR BIG DATA

- Topic 1. Apache Hadoop
- Topic 2. The Hadoop Ecosystem
- Topic 3. Apache Spark
- Topic 4. Streaming Technologies
- Topic 5. File systems and platforms for big data in the cloud

SECTION 9: PROJECT MANAGEMENT

- Topic 1. Project management figure
- Topic 2. Team management
- Topic 3. Team management and communication
- Topic 4. Project management

SECTION 10: AGILE METHODOLOGIES

- Topic 1. Product management
- Topic 2. Lean startup
- Topic 3. Agile management

SECTION 11: BUSINESS PLAN

- Topic 1. Vision, mission and values
- Topic 2. Strategic plan
- Topic 3. Business model
- Topic 4. Strategic analysis
- Topic 5. Monitoring the strategic plan

SECTION 12: MARKETING ANALYTICS

- Topic 1. How to optimize your website
- Topic 2. Web traffic management
- Topic 3. Affiliate marketing and its measurement
- Topic 4. Google Data Studio

SECTION 13: E-COMMERCE

- Topic 1. Online sales
- Topic 2. Web store
- Topic 3. Mobile applications
- Topic 4. From interested lead to buyer
- Topic 5. Web analytics
- Topic 6. User experience
- Topic 7. Digital campaigns
- Topic 8. Mobile payment
- Topic 9. Landing page

SECTION 14: DIGITAL BUSINESS

- Topic 1. E-commerce and its operations
- Topic 2. e-procurement: e-procurement
- Topic 3. Operational management of e-commerce: e-fulfillment
- Topic 4. Marketplaces
- Topic 5. The last mile
- Topic 6. Exponential structures
- Topic 7. Digital business

SECTION 15: DIGITAL TRANSFORMATION

- Topic 1. Business digitalization
- Topic 2. Artificial Intelligence (AI)
- Topic 3. The Internet of Things (IoT)
- Topic 4. Blockchain
- Topic 5. Big Data and Business Intelligence (BI)
- Topic 6. Cloud computing
- Topic 7. Industrial automation and robotics
- Topic 8. Cybersecurity

SECTION 16: FINTECH AND BLOCKCHAIN

- Topic 1. Introduction to the digital transformation of the financial system.
- Topic 2. Technology applied to fintech
- Topic 3. Blockchain
- Topic 4. Crypto
- Topic 5. Business models
- Topic 6. Startup
- Topic 7. Financial regulation

A JOURNEY THROUGH THE SYLLABUS

SECTION 1: BIG DATA

Big Data is a comprehensive exploration of the concepts, technologies, and methodologies required for managing and analyzing massive datasets. This section focuses on understanding the complexities of Big Data, integrating modern technologies, and applying Agile methodologies and Artificial Intelligence (AI) to solve real-world business problems. Students will engage with the foundational elements of Big Data, learn about its role in project management, and investigate various industry use cases to see how Big Data solutions are applied in practice.

Topic 1: Introduction to Big Data

The introduction to Big Data sets the stage for understanding how large-scale data collection and analysis can drive business strategies and innovations. Students will delve into the definition of Big Data and explore its defining characteristics: Volume (the sheer amount of data), Variety (the different types of data), and Velocity (the speed at which data is generated and processed). This foundational knowledge will be crucial for grasping how Big Data differs from traditional data management systems and how it is utilized in modern business environments.

Topic 2: Big Data in Projects

This topic focuses on the practical application of Big Data concepts within project management frameworks. Students will learn about the complete lifecycle of a Big Data project, including key phases such as project initiation, planning, execution, and closure. They will explore how tools like Hadoop and Apache Spark are used in real-world Big Data projects and study case examples to understand best practices and challenges associated with managing Big Data initiatives.

Topic 3: Agile Methodologies

In this topic, students will investigate Agile methodologies and their adaptation for Big Data projects. The Agile approach, characterized by iterative development and flexible responses to change, will be explored through frameworks like Scrum, Kanban, and Lean. Students will learn how these methodologies support Big Data projects by promoting collaboration, managing evolving requirements, and delivering value through continuous improvements.

Topic 4: Artificial Intelligence

Here, students will explore the intersection of Artificial Intelligence (AI) and Big Data. The topic covers foundational AI concepts such as machine learning, data analysis algorithms, and their applications in analyzing large datasets. Students will gain insights into how AI can be used to derive actionable business insights from Big Data and understand various AI techniques including supervised learning, unsupervised learning, and reinforcement learning.

Topic 5: Use Cases in Industry

This topic provides a deep dive into real-world applications of Big Data across various industries. Students will analyze diverse industry case studies to see how Big Data technologies have been employed to address specific challenges and achieve business objectives. This exploration will help students understand the practical implications of Big Data solutions and the diverse ways they can be applied to solve real business problems.

SECTION 2: BUSINESS INTELLIGENCE

Business Intelligence (BI) focuses on the technologies, tools, and practices used to collect, analyze, and present business data. This section covers the foundations of BI, including system design, report creation, data sources, and ensuring data quality. Students will learn to utilize BI tools for generating insights that support strategic decision-making and improve business performance.

Topic 1: Introduction to Business Intelligence

Students will be introduced to the concept of Business Intelligence, exploring its role in transforming data into actionable insights for businesses. The topic covers the fundamental principles of BI, including

the technologies used to collect and analyze data, and the importance of BI systems in strategic decision-making processes.

Topic 2: Business Intelligence Systems

This topic examines various Business Intelligence systems and tools used for data collection, analysis, and reporting. Students will learn about the architecture of BI systems, including components like data warehouses, ETL processes, and analytical tools, and explore how these systems support business decision-making.

Topic 3: Design of Reports, Dashboards, and KPIs

Students will focus on designing effective BI reports, dashboards, and Key Performance Indicators (KPIs). The topic covers best practices for creating visualizations and metrics that communicate business performance and support data-driven decisions. Emphasis will be placed on the design principles for clear and actionable BI outputs.

Topic 4: Data Sources

This topic explores the various data sources used in Business Intelligence. Students will learn about different types of data sources, methods for data collection, and strategies for integrating data from multiple sources to create comprehensive BI reports and analyses.

Topic 5: Data Quality

Data quality is crucial for effective BI. This topic covers methods for ensuring the accuracy, consistency, and reliability of data used in BI processes. Students will learn techniques for data validation, cleaning, and maintaining high data quality standards.

SECTION 3: DATA MANAGEMENT

Data Management encompasses the practices and technologies for collecting, storing, and protecting data to support business operations and strategic decision-making. This section covers key concepts in data management, including open data, data privacy, and developing effective data strategies.

Topic 1: Open Data

Students will explore the concept of open data and its role in fostering transparency, innovation, and public engagement. This topic covers the principles of open data initiatives, the benefits of making data accessible to the public, and the challenges associated with open data management.

Topic 2: Data Management

This topic covers the essential practices for managing data throughout its lifecycle. Students will learn about data collection, storage, organization, and governance strategies, focusing on how to manage data effectively to meet business needs.

Topic 3: Data Privacy

Data privacy is critical for protecting sensitive information. Students will study data privacy laws, regulations, and best practices for ensuring the protection of personal and confidential data. The topic emphasizes the importance of compliance with legal standards and ethical considerations in data management.

Topic 4: Data Storage

This topic covers various data storage solutions, including traditional and cloud-based options. Students will learn about different storage technologies, their applications, and how to choose the best storage solutions for different data management needs.

Topic 5: Strategy and Data

Students will explore how to develop data strategies that align with business objectives. This topic covers methods for leveraging data to support strategic planning, drive decision-making, and achieve organizational goals.

SECTION 4: PYTHON, CARTO, POWER BI, AND GOOGLE DATA STUDIO

Python, Carto, Power BI, and Google Data Studio provide students with practical skills for data analysis and visualization. This section covers tools and techniques for interpreting data, creating visualizations, and generating reports to support business decisions.

Topic 1: Interpretation of Data

This topic teaches methods for analyzing and interpreting data to extract meaningful insights. Students will learn techniques for data exploration, trend analysis, and deriving conclusions from data.

Topic 2: Interactive Visualization with Python

Students will learn to use Python for creating interactive data visualizations. This topic covers Python libraries and tools for developing visualizations that enable users to explore and analyze data interactively.

Topic 3: Introduction to Carto

This topic introduces Carto, a platform for location-based data analysis and visualization. Students will learn to create maps and visualize geographic data using Carto's features and tools.

Topic 4: Microsoft Power BI

Students will explore Microsoft Power BI for data visualization and business reporting. The topic covers creating dashboards, generating reports, and using Power BI features to present business data effectively.

Topic 5: Google Data Studio

This topic covers Google Data Studio for creating reports and visualizations. Students will learn to design interactive reports and dashboards that communicate data insights and support business decisions.

SECTION 5: DATABASES

Databases focuses on the fundamental technologies and practices for managing data storage, retrieval, and manipulation. This section covers both relational and non-relational databases, offering practical experience with SQL and NoSQL technologies.

Topic 1: Database Fundamentals

This topic covers the basics of database systems, including their structures, functions, and roles in data management. Students will learn about relational databases, data models, and the importance of databases in business applications.

Topic 2: Database Technology

Students will explore various database technologies, including relational and NoSQL databases. The focus is on understanding different database types, their architectures, and their applications for managing business data.

Topic 3: SQL Practice (MySQL)

This topic provides practical experience with SQL using MySQL. Students will learn to write SQL queries for data retrieval, manipulation, and management, gaining hands-on skills in working with relational databases.

Topic 4: SQL Practice (MySQL)

Further practice with SQL in MySQL will deepen students' abilities to handle complex queries, optimize performance, and manage database structures for various business applications.

Topic 5: NoSQL Practice (HBase)

Students will explore NoSQL databases, focusing on HBase for managing unstructured data. This topic covers NoSQL database concepts, HBase features, and techniques for performing scalable data queries.

Topic 6: Databases for Networks

This topic examines databases used in network environments, including strategies for managing distributed databases and ensuring data consistency and integrity across networks.

Topic 7: Databases in the Cloud

Students will learn about cloud-based database solutions, focusing on the benefits and challenges of cloud storage for Big Data. The topic covers cloud database platforms, deployment models, and best practices for managing data in the cloud.

SECTION 6: DATA ANALYSIS AND INTERPRETATION

Data Analysis and Interpretation covers techniques for analyzing data, making statistical inferences, and using data to support business decisions. This section explores methods for data representation, statistical analysis, and hypothesis testing.

Topic 1: Data Representation

Students will learn methods for representing data through various visual tools such as charts, graphs, and infographics. The focus is on effective data visualization techniques to communicate insights and support decision-making.

Topic 2: Measurements

This topic covers statistical measurements used in data analysis, including mean, median, mode, and standard deviation. Students will learn how to calculate and interpret these measures to understand data distributions and trends.

Topic 3: Regression and Correlation

Students will explore techniques for analyzing relationships between variables using regression and correlation methods. The topic covers linear regression, correlation coefficients, and their applications for predicting outcomes and identifying trends.

Topic 4: Probability

The topic introduces fundamental concepts of probability theory, including probability distributions, events, and outcomes. Students will learn to calculate probabilities and apply them to data analysis and decision-making.

Topic 5: Distributions

Students will study different probability distributions, including normal, binomial, and Poisson distributions. The focus is on understanding distribution properties and their applications in statistical analysis.

Topic 6: Confidence Intervals

This topic covers the concept of confidence intervals for estimating population parameters. Students will learn how to calculate confidence intervals, interpret their meanings, and use them to make informed decisions based on data.

Topic 7: Introduction to Hypothesis Testing

Students will be introduced to hypothesis testing methods, including formulating hypotheses, conducting tests, and interpreting results. The topic covers common tests like t-tests, chi-square tests, and ANOVA.

Topic 8: Statistics with R

This topic provides an introduction to statistical analysis using the R programming language. Students will learn to perform data analysis tasks, including data manipulation, statistical testing, and visualization with R.

SECTION 7: ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) explores the foundational concepts and advanced techniques used in AI applications. This section covers a range of AI topics from introductory principles to advanced machine learning methods and deep learning techniques.

Topic 1: Introduction to Data Analysis with Python

Students will begin by learning data analysis techniques using Python, focusing on libraries and tools for data manipulation, exploration, and visualization.

Topic 2: Introduction to Machine Learning

This topic introduces the basics of machine learning, covering types of learning (supervised, unsupervised) and fundamental algorithms used to create predictive models from data.

Topic 3: Supervised Machine Learning

Students will explore supervised machine learning techniques, including classification and regression algorithms. The topic covers model training, evaluation, and application to real-world problems.

Topic 4: Unsupervised Machine Learning

The focus here is on unsupervised machine learning methods such as clustering and dimensionality reduction. Students will learn techniques for discovering patterns and structures in unlabeled data.

Topic 5: Reinforcement Learning

Students will study reinforcement learning concepts, including algorithms for training agents to make decisions through trial and error. The topic covers key techniques such as Q-learning and policy gradients.

Topic 6: Deep Learning Fundamentals

This topic provides an introduction to deep learning, covering neural networks, including architectures like convolutional neural networks (CNNs) and recurrent neural networks (RNNs). Students will learn about deep learning frameworks and their applications.

SECTION 8: STORAGE TECHNOLOGIES FOR BIG DATA

Storage Technologies for Big Data explores the technologies and platforms used for storing and managing large volumes of data. This section covers the principles of data storage, including technologies for Big Data storage, processing, and streaming.

Topic 1: Apache Hadoop

Students will study Apache Hadoop, an open-source framework for processing large data sets across distributed computing environments. The topic covers Hadoop's architecture, components, and applications in Big Data analytics.

Topic 2: The Hadoop Ecosystem

This topic explores the broader Hadoop ecosystem, including tools and technologies that integrate with Hadoop for data processing and analysis, such as Hive, Pig, and HBase.

Topic 3: Apache Spark

Students will learn about Apache Spark, a unified analytics engine for large-scale data processing. The topic covers Spark's core components, including Spark SQL, Spark Streaming, and Spark MLlib.

Topic 4: Streaming Technologies

This topic covers technologies for real-time data processing and streaming, including tools like Apache Kafka and Apache Flink. Students will explore how to handle and analyze data streams as they are generated.

Topic 5: File Systems and Platforms for Big Data in the Cloud

Students will explore cloud-based file systems and platforms for Big Data, including solutions like Amazon S3, Google Cloud Storage, and Microsoft Azure. The topic covers cloud storage options, their benefits, and their integration with Big Data tools.

SECTION 9: PROJECT MANAGEMENT

Project Management focuses on the principles and practices of managing projects effectively. This section covers the fundamentals of project management, including team management, communication, and project planning techniques.

Topic 1: Project Management Figure

Students will learn about the role of the project manager, including responsibilities, skills, and the importance of leadership in successful project management.

Topic 2: Team Management

This topic covers techniques for managing project teams, including strategies for team building, conflict resolution, and performance management to achieve project goals.

Topic 3: Team Management and Communication

Students will explore effective communication strategies for managing teams, including methods for facilitating collaboration, maintaining clear communication, and managing stakeholder expectations.

Topic 4: Project Management

The focus here is on project management methodologies and practices. Students will learn about project planning, scheduling, budgeting, and risk management, as well as tools and techniques for managing project activities.

SECTION 10: AGILE METHODOLOGIES

Agile Methodologies introduces Agile frameworks and practices for managing projects in dynamic environments. This section covers Agile principles, frameworks, and methods for improving project efficiency and adaptability.

Topic 1: Product Management

Students will learn about product management within Agile frameworks, including techniques for defining product vision, managing product backlogs, and prioritizing features.

Topic 2: Lean Startup

This topic covers Lean Startup principles for developing new products and services. Students will explore techniques for validating business ideas, iterating on product development, and achieving market fit.

Topic 3: Agile Management

Students will explore Agile management practices, including frameworks like Scrum and Kanban. The topic covers Agile processes, roles, ceremonies, and tools used to manage Agile projects.

SECTION 11: BUSINESS PLAN

Business Plan focuses on creating and implementing effective business strategies. This section covers the development of business plans, including vision, mission, strategic goals, and methods for monitoring and adjusting business strategies.

Topic 1: Vision, Mission, and Values

Students will learn to define a company's vision, mission, and core values. The topic covers how to articulate a company's purpose, goals, and guiding principles to inspire and direct business efforts.

Topic 2: Strategic Plan

This topic covers the development of strategic plans to achieve business objectives. Students will learn about strategic planning processes, including setting goals, analyzing the business environment, and developing action plans.

Topic 3: Business Model

Students will explore various business models and their components, including value propositions, revenue streams, and customer segments. The topic covers how to design and refine business models to support business success.

Topic 4: Strategic Analysis

This topic covers methods for conducting strategic analyses to evaluate business opportunities and challenges. Students will learn techniques such as SWOT analysis, PESTEL analysis, and competitive analysis.

Topic 5: Monitoring the Strategic Plan

Students will learn methods for monitoring and evaluating the effectiveness of strategic plans. The topic covers techniques for measuring performance, adjusting strategies, and ensuring alignment with business objectives.

SECTION 12: MARKETING ANALYTICS

Marketing Analytics focuses on using data to drive marketing strategies and improve business outcomes. This section covers techniques for analyzing web traffic, optimizing marketing efforts, and measuring the effectiveness of digital campaigns.

Topic 1: How to Optimize Your Website

Students will learn strategies for optimizing websites to improve performance and user experience. The topic covers techniques for enhancing website design, functionality, and search engine optimization (SEO).

Topic 2: Web Traffic Management

This topic covers methods for managing and analyzing web traffic to understand user behavior and improve website performance. Students will explore tools for tracking traffic sources, user interactions, and conversion metrics.

Topic 3: Affiliate Marketing and Its Measurement

Students will explore affiliate marketing strategies and techniques for measuring their effectiveness. The topic covers how to manage affiliate programs, track performance, and optimize marketing efforts.

Topic 4: Google Data Studio

This topic focuses on using Google Data Studio for creating marketing reports and visualizations. Students will learn to design dashboards, analyze marketing data, and generate insights for strategic decision-making.

SECTION 13: E-COMMERCE

E-Commerce explores the strategies and technologies for conducting business online. This section covers topics related to online sales, web stores, mobile applications, and digital marketing strategies.

Topic 1: Online Sales

Students will learn about the fundamentals of online sales, including e-commerce platforms, sales strategies, and best practices for managing online transactions and customer interactions.

Topic 2: Web Store

This topic covers the design and management of web stores for e-commerce. Students will explore topics such as store setup, product listing, shopping cart functionality, and payment processing.

Topic 3: Mobile Applications

Students will learn about the development and management of mobile applications for e-commerce. The topic covers strategies for creating user-friendly apps, managing app stores, and optimizing mobile sales.

Topic 4: From Interested Lead to Buyer

This topic covers the sales funnel process from attracting leads to converting them into buyers. Students will explore strategies for lead generation, nurturing, and closing sales in an online environment.

Topic 5: Web Analytics

Students will study web analytics techniques for measuring website performance and user behavior. The topic covers tools and methods for analyzing traffic data, user interactions, and conversion rates.

Topic 6: User Experience

This topic focuses on the principles of user experience (UX) design for e-commerce websites and applications. Students will learn techniques for creating intuitive and engaging user experiences.

Topic 7: Digital Campaigns

Students will explore strategies for planning and executing digital marketing campaigns. The topic covers campaign objectives, targeting, creative strategies, and performance measurement.

Topic 8: Mobile Payment

This topic covers mobile payment technologies and solutions for e-commerce. Students will learn about mobile payment methods, security considerations, and best practices for managing mobile transactions.

Topic 9: Landing Page

Students will learn about designing effective landing pages for e-commerce and digital marketing campaigns. The topic covers elements of successful landing pages, including design, content, and conversion optimization.

SECTION 14: DIGITAL BUSINESS

Digital Business focuses on leveraging digital technologies to create and manage business opportunities. This section covers e-commerce operations, digital procurement, and innovative business models.

Topic 1: E-commerce and Its Operations

Students will explore the operations of e-commerce businesses, including the processes involved in online selling, order fulfillment, and customer service. The topic covers best practices for managing e-commerce operations effectively.

Topic 2: E-Procurement

This topic covers electronic procurement systems and practices for managing business purchases and supply chain activities. Students will learn about e-procurement tools, processes, and strategies for improving procurement efficiency.

Topic 3: Operational Management of E-commerce: E-Fulfillment

Students will study e-fulfillment processes, including order processing, warehousing, and delivery logistics for e-commerce businesses. The topic covers strategies for optimizing e-fulfillment operations and managing supply chains.

Topic 4: Marketplaces

This topic explores online marketplaces as platforms for buying and selling goods and services. Students will learn about marketplace models, management strategies, and opportunities for businesses in digital marketplaces.

Topic 5: The Last Mile

Students will learn about the last mile delivery process in e-commerce logistics. The topic covers strategies for managing final delivery steps, improving delivery efficiency, and enhancing customer satisfaction.

Topic 6: Exponential Structures

This topic covers the concept of exponential organizations and business models that scale rapidly through digital technologies. Students will explore examples of exponential companies and the principles that drive their growth.

Topic 7: Digital Business

Students will study the broader concept of digital business, including strategies for creating digital products, services, and business models. The topic covers the impact of digital transformation on traditional business practices.

SECTION 15: DIGITAL TRANSFORMATION

Digital Transformation explores the process of integrating digital technologies into all aspects of business operations. This section covers the impact of digital technologies on industries and the strategies for successful digital transformation.

Topic 1: Business Digitalization

Students will learn about the process of digitalizing business operations and services. The topic covers strategies for implementing digital technologies, transforming business processes, and managing change.

Topic 2: Artificial Intelligence (AI)

This topic revisits Artificial Intelligence with a focus on its applications and implications for digital transformation. Students will explore how AI technologies are used to enhance business operations and drive innovation.

Topic 3: The Internet of Things (IoT)

Students will explore the Internet of Things (IoT) and its applications in connecting devices and collecting data. The topic covers IoT technologies, use cases, and the impact of IoT on business operations and services.

Topic 4: Blockchain

This topic covers the fundamentals of blockchain technology, including its architecture, applications, and potential for transforming various industries. Students will learn about blockchain concepts and use cases for digital transformation.

Topic 5: Big Data and Business Intelligence (BI)

Students will explore the role of Big Data and Business Intelligence in digital transformation. The topic covers how organizations use Big Data and BI tools to drive strategic decisions and improve business outcomes.

Topic 6: Cloud Computing

This topic covers cloud computing technologies and their role in digital transformation. Students will learn about cloud services, deployment models, and strategies for leveraging cloud computing for business innovation.

Topic 7: Industrial Automation and Robotics

Students will explore industrial automation and robotics technologies used to improve efficiency and productivity in manufacturing and other industries. The topic covers automation systems, robotic applications, and their impact on business operations.

Topic 8: Cybersecurity

This topic covers cybersecurity practices and strategies for protecting digital assets and information. Students will learn about cybersecurity threats, protection measures, and best practices for maintaining secure digital environments.

SECTION 16: FINTECH AND BLOCKCHAIN

Fintech and Blockchain explores the intersection of financial technologies and blockchain innovations. This section covers the digital transformation of financial systems, emerging fintech technologies, and blockchain applications in the financial sector.

Topic 1: Introduction to the Digital Transformation of the Financial System

Students will be introduced to the concept of fintech and the digital transformation of financial services. The topic covers trends, technologies, and innovations shaping the future of the financial industry.

Topic 2: Technology Applied to Fintech

This topic covers the technologies driving fintech innovations, including digital payments, online banking, and financial management tools. Students will explore how these technologies are transforming financial services.

Topic 3: Blockchain

Students will study blockchain technology in depth, including its principles, applications, and impact on financial services. The topic covers blockchain's role in creating secure, decentralized systems for financial transactions.

Topic 4: Crypto

This topic focuses on cryptocurrencies and their role in the financial ecosystem. Students will learn about cryptocurrency technologies, market trends, and the potential of digital currencies for financial innovation.

Topic 5: Business Models

Students will explore different business models in the fintech sector, including revenue streams, value propositions, and market strategies for fintech startups and established companies.

Topic 6: Startup

This topic covers the process of starting and growing a fintech startup. Students will learn about startup strategies, funding options, and the challenges of launching and scaling new fintech ventures.

Topic 7: Financial Regulation

Students will study financial regulations and compliance issues in the fintech industry. The topic covers regulatory frameworks, legal considerations, and best practices for navigating the regulatory environment in financial services.