

European Business School of Barcelona

In collaboration with:

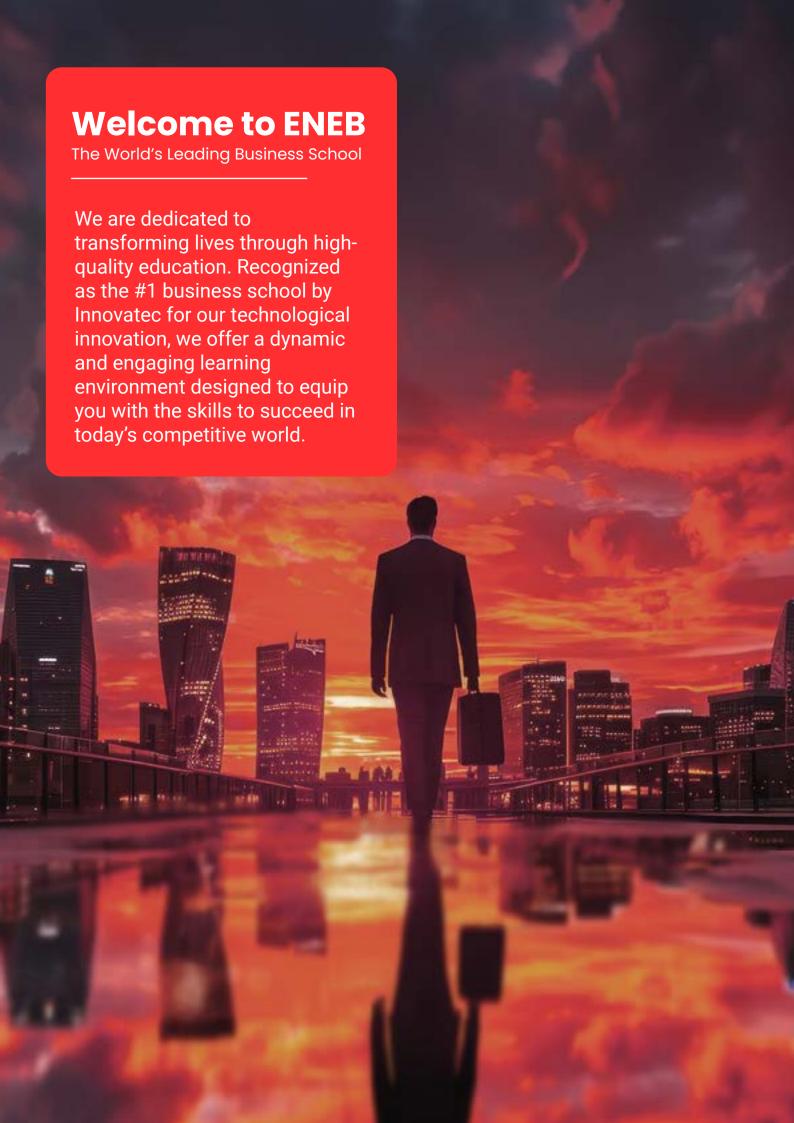












Why ENEB?

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







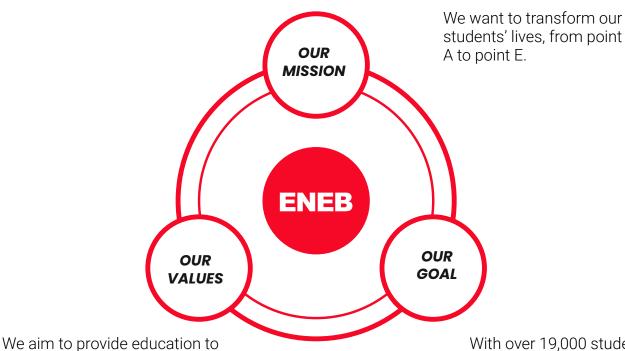






You are our mission, our values and our goals

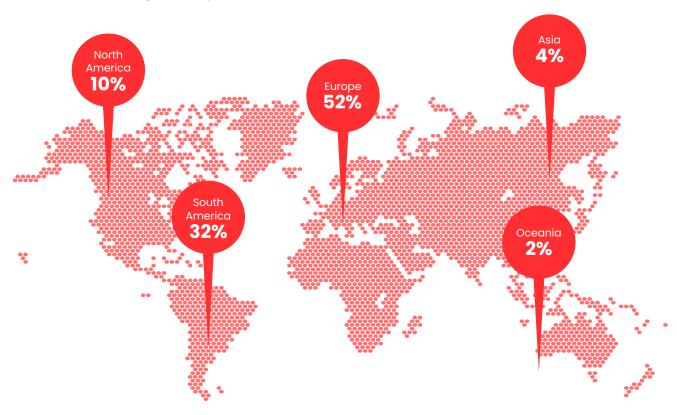
Our mission at ENEB is to transform your life, empowering you to choose your own path and dedicate your time to what you are most passionate about, with no limits to achieving your goals. We envision ourselves as the gateway to your life objectives, offering accessible, top-quality education for everyone. 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.



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

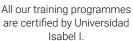
Numbers are not just figures; they are the result of our relentless effort and dedication. At ENEB, our impressive stats reflect our commitment to excellence and our global impact on education and transformation.



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:







Collaboration with IEE, for validations in USA and Canada.



Member of the Spanish Confederation of Private Centres and Academies.



Member of the Spanish National Association of e-Learning and Distance Learning Centres



Collaborating Centre of the Trinity College London.



Quality and excellence certification with the highest score issued by the European Foundation for Quality Management.



Certificate of educational excellence established



Member of the Barcelona Chamber of Commerce



Best business school rated by its students.



Registered trademark with the number 3,543,757 within class 41 of Education and Training.



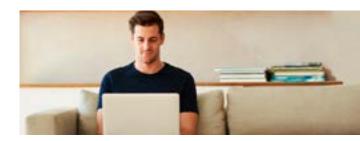
Associated to the Latin American Council of Management Schools



Associated with the Asociación Española de Escuelas de Negocios.

Remote learning

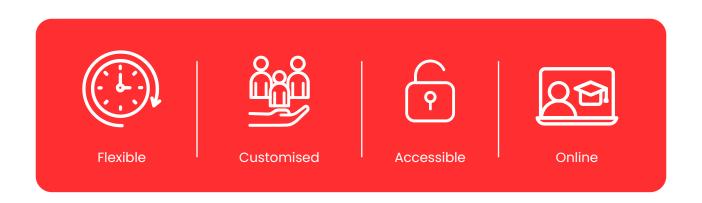
ENEB's training programs are 100% online and includes manuals, daily and voluntary live classes in the ENEB Metaverse, multimedia resources, forums, and debates within the ENEB community, as well as tutoring from Monday to Sunday.



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.





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 successfull 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.







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.

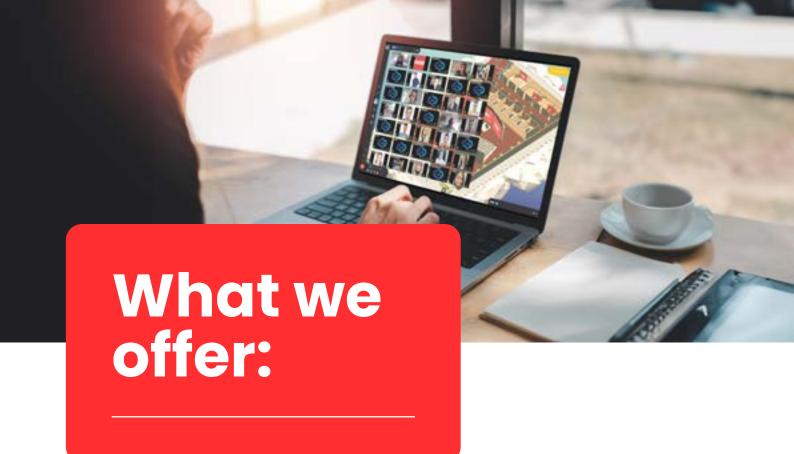
Calendar

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.



- 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.

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.

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:





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



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: DIntended 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.

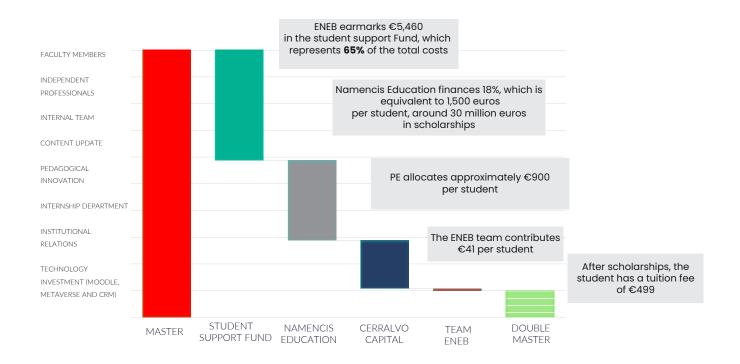
SMEs Scholarship: Designed for entrepreneurs who wish to increase their knowledge to contribute to the growth of their company.

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."





INTRODUCTION

The Master in Project Management + Master in Big Data and Business Intelligence is a dual degree program designed to train highly qualified professionals in the areas of project management and data analysis. This program combines the technical skills needed to work with Big Data and Business Intelligence, with the leadership and project management skills needed to lead teams and projects.

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 completing your studies, you will be eligible to receive a double certification awarded by the European Business School of Barcelona, endorsed and certified by Universidad Isabel I:

- Master in Project Management + Master in Big Data and Business Intelligence
- Business Spanish Program Certificate (optional)

Additionally, you will obtain a Diploma of Specialization in Innovation and Project Management issued by the European Business School of Barcelona. This diploma certifies the acquisition of key competencies in these strategic areas, significantly enhancing your professional profile and improving your employment opportunities in today's competitive job market.

WHO IS IT FOR?

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

- Professionals who wish to acquire knowledge in project management, Big Data and Business Intelligence to improve their job performance.
- People who wish to develop skills to lead and manage projects with a focus on technology and data.
- Those looking to improve their skills in data-driven decision making and business data analytics.
- Individuals interested in working in the technology industry, particularly in project management and datainformed decision making.
- Professionals looking to improve their knowledge in areas of business innovation and digital transformation.

OBJECTIVES

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

 Provide a deep understanding of the tools, techniques and strategies in Project Management and Big Data.

- Develop leadership and project management skills.
- Provide a complete training in data analysis techniques and Big Data.
- Train students to lead teams and projects of high complexity in both areas.
- Develop skills in data-driven decision making.
- Foster creativity and innovation in project management and data analysis.
- Improve communication and collaboration skills in interdisciplinary projects.
- Provide a thorough understanding of the ethical and legal implications of data use.
- Prepare students to work in international and multinational environments.
- Provide students with networking and business opportunities in both areas.

CAREER OPPORTUNITIES

- Information technology (IT) and Big Data project manager.
- Project management consultant and business data analyst.
- Technology and data manager in companies of different sectors.

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 Project Management + Master in Big Data and Business Intelligence
- 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

SYLLABUS

SECTION 1: 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 2: PROJECT MANAGEMENT

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

SECTION 3: DECISION MAKING

- Topic 1. Problem definition
- Topic 2. Selection of criteria and techniques
- Topic 3. Development of alternatives
- Topic 4. Analysis
- Topic 5. Decision
- Topic 6. Action plan
- Topic 7. Examples of problems

SECTION 4: AGILE METHODOLOGIES

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

SECTION 5: MANAGEMENT SKILLS

- Topic 1. Leadership
- Topic 2. Effective communication
- Topic 3. Coaching
- Topic 4. Empowering teams
- Topic 5. Change management

SECTION 6: 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 7: 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

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- Topic 8. Cybersecurity

SECTION 8: SUPPLY CHAIN

- Topic 1. Supply chain
- Topic 2. Purchase management
- Topic 3. Warehouse management
- Topic 4. Logistic models
- Topic 5. Reverse logistics
- Topic 6. Amazon Model
- Topic 7. Innovation and sustainability

SECTION 9: 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 10: DATA MANAGEMENT

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

SECTION 11: 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 12: 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

- 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 14: 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 15: 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 16: 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

A JOURNEY THROUGH THE SYLLABUS

SECTION 1: BUSINESS PLAN

This section covers the essential elements of crafting a comprehensive business plan that sets the direction for a company's strategic efforts and growth.

Topic 1: Vision, Mission, and Values

Understanding the fundamental components of a business's purpose and direction is crucial. The vision statement defines the future aspirations of the company, aiming to inspire and guide long-term objectives. The mission statement articulates the company's core purpose, detailing what it does, who it serves, and its unique value proposition. Values represent the core principles and ethical standards that shape the company's culture and decision-making processes.

Topic 2: Strategic Plan

Developing a strategic plan involves setting specific, measurable goals to guide the organization towards its vision. This plan includes defining long-term objectives, establishing strategies for achieving them, and outlining detailed action plans. It serves as a roadmap for the company's direction and helps in aligning resources and efforts toward achieving the vision.

Topic 3: Business Model

A business model explains how a company creates, delivers, and captures value. It encompasses the mechanisms through which the company operates and generates revenue. Key components include the value proposition, customer segments, revenue streams, and cost structures. Understanding these elements helps in designing a sustainable and competitive business strategy.

Topic 4: Strategic Analysis

Strategic analysis involves evaluating the internal and external environments of a business to identify strengths, weaknesses, opportunities, and threats. This analysis supports strategic decision-making and helps in formulating effective strategies to leverage strengths, address weaknesses, seize opportunities, and mitigate threats.

Topic 5: Monitoring the Strategic Plan

Monitoring involves tracking the progress of the strategic plan against set objectives. It includes setting performance indicators, reviewing progress, and making adjustments as needed. This ongoing process ensures that the strategies remain effective and aligned with the company's goals.

SECTION 2: PROJECT MANAGEMENT

This section provides foundational knowledge and skills for managing projects effectively, focusing on organizing resources, leading teams, and achieving project goals.

Topic 1: Project Management Figure

The project management figure refers to the role and responsibilities of the project manager. This includes overseeing project planning, execution, monitoring, and closing phases. The project manager ensures that the project meets its objectives within scope, time, and budget constraints.

Topic 2: Team Management

Team management involves organizing, leading, and motivating a team to achieve project goals. It includes building team cohesion, defining roles and responsibilities, and managing conflicts. Effective team management ensures that team members work collaboratively towards common objectives.

Topic 3: Team Management and Communication

Effective communication within a team is essential for project success. This topic covers communication strategies, including regular updates, feedback mechanisms, and conflict resolution. Good communication fosters a positive team environment and ensures that information is shared efficiently.

Topic 4: Project Management

Project management encompasses the entire process of planning, executing, and closing projects. It includes defining project scope, developing schedules, managing resources, and ensuring that deliverables meet the required standards. Mastery of project management principles is crucial for successful project completion.

SECTION 3: DECISION MAKING

This section focuses on the processes involved in making informed decisions to solve problems and achieve organizational goals.

Topic 1: Problem Definition

Identifying and defining the problem is the first step in effective decision-making. This involves understanding the nature of the problem, its causes, and its impact on the organization. Clear problem definition is essential for developing effective solutions.

Topic 2: Selection of Criteria and Techniques

This topic covers methods for selecting criteria and techniques for evaluating potential solutions. It includes defining decision-making criteria, such as cost, feasibility, and impact, and choosing appropriate techniques for analysis and comparison.

Topic 3: Development of Alternatives

Generating a range of possible solutions to address the identified problem is crucial. This involves brainstorming and evaluating alternative approaches, considering different perspectives, and ensuring that all potential solutions are explored.

Topic 4: Analysis

Analyzing alternatives involves assessing each option against the defined criteria. This includes evaluating the pros and cons of each alternative, considering potential risks, and forecasting outcomes to determine the best course of action.

Topic 5: Decision

Making the final decision involves selecting the most effective alternative based on the analysis. This step requires judgment and the ability to weigh various factors to choose the option that best meets the objectives and constraints.

Topic 6: Action Plan

Developing an action plan involves outlining the steps needed to implement the chosen solution. This includes assigning tasks, setting deadlines, and identifying resources required for execution.

Topic 7: Examples of Problems

Examining real-world examples of problems and decision-making processes helps to understand practical applications. This includes case studies and scenarios that illustrate common challenges and decision-making strategies.

SECTION 4: AGILE METHODOLOGIES

This section covers Agile methodologies that focus on iterative development, flexibility, and customer collaboration.

Topic 1: Product Management

Product management involves overseeing the lifecycle of a product from conception to launch. This includes defining product vision, developing roadmaps, and prioritizing features based on customer needs and market trends.

Topic 2: Lean Startup

Lean startup methodology emphasizes rapid prototyping, customer feedback, and iterative development. It focuses on creating minimum viable products, testing assumptions, and making adjustments based on real-world feedback.

Topic 3: Agile Management

Agile management promotes iterative development and flexibility. It involves breaking projects into smaller, manageable tasks, conducting regular reviews, and adapting plans based on feedback and changing requirements.

SECTION 5: MANAGEMENT SKILLS

This section develops key skills for effective leadership and team management in a business environment.

Topic 1: Leadership

Leadership involves guiding and inspiring others to achieve organizational goals. This includes setting a vision, motivating team members, and leading by example to foster a productive and collaborative work environment.

Topic 2: Effective Communication

Effective communication skills are essential for conveying ideas, providing feedback, and building relationships. This topic covers techniques for clear and persuasive communication, including verbal, non-verbal, and written methods.

Topic 3: Coaching

Coaching focuses on helping individuals develop their skills and reach their potential. It includes techniques for providing guidance, setting goals, and offering support to facilitate personal and professional growth.

Topic 4: Empowering Teams

Empowering teams involves delegating authority, encouraging autonomy, and fostering a sense of ownership among team members. This approach enhances team motivation and performance by giving members the tools and confidence to succeed.

Topic 5: Change Management

Change management involves guiding organizations through transitions and transformations. This includes strategies for managing resistance, communicating changes, and ensuring successful implementation of new processes or initiatives.

SECTION 6: DIGITAL BUSINESS

This section explores the principles and practices of operating a business in the digital age.

Topic 1: E-commerce and Its Operations

E-commerce involves buying and selling goods and services online. This topic covers the operations of e-commerce platforms, including transaction processes, customer service, and digital marketing strategies.

Topic 2: e-Procurement

e-Procurement refers to the electronic process of acquiring goods and services. This includes managing supplier relationships, handling procurement transactions, and utilizing technology for efficiency and transparency.

Topic 3: Operational Management of E-commerce

Operational management focuses on the day-to-day activities of running an e-commerce business. This includes order fulfillment, inventory management, and customer support.

Topic 4: Marketplaces

Marketplaces are online platforms where buyers and sellers interact. This topic explores the structure of online marketplaces, business models, and strategies for success in this digital environment.

Topic 5: The Last Mile

The last mile refers to the final step in the delivery process from distribution centers to customers. This topic covers logistics strategies, delivery optimization, and customer satisfaction in the last mile of the supply chain.

Topic 6: Exponential Structures

Exponential structures involve leveraging technology to scale businesses rapidly. This includes understanding the dynamics of exponential growth and implementing strategies for sustainable expansion.

Topic 7: Digital Business

Digital business encompasses the integration of digital technologies into business models and processes. This topic explores how businesses use digital tools to create value, improve operations, and reach customers.

SECTION 7: DIGITAL TRANSFORMATION

This section addresses the impact of technological advancements on business processes and strategies.

Topic 1: Business Digitalization

Digitalization involves incorporating digital technologies into all aspects of business operations. This includes automating processes, enhancing customer interactions, and leveraging data for decision-making.

Topic 2: Artificial Intelligence (AI)

Al refers to systems that perform tasks requiring human intelligence. This topic covers Al technologies, including machine learning, natural language processing, and their applications in business.

Topic 3: The Internet of Things (IoT)

IoT refers to interconnected devices that collect and exchange data. This topic explores IoT technologies, applications, and their impact on business operations and decision-making.

Topic 4: Blockchain

Blockchain is a decentralized ledger technology for secure transactions. This topic covers the principles of blockchain, its applications in various industries, and its potential for transforming business processes.

Topic 5: Big Data and Business Intelligence (BI)

Big Data refers to large and complex datasets, while BI involves analyzing this data for insights. This topic covers data collection, analysis techniques, and BI tools for making informed business decisions.

Topic 6: Cloud Computing

Cloud computing provides on-demand access to computing resources over the internet. This topic explores cloud service models, deployment options, and the benefits of cloud computing for businesses.

Topic 7: Industrial Automation and Robotics

Industrial automation involves using technology to automate manufacturing processes. This topic covers automation systems, robotics applications, and their impact on efficiency and productivity in industry.

Topic 8: Cybersecurity

Cybersecurity focuses on protecting digital assets from threats and attacks. This topic covers strategies for securing data, systems, and networks against cyber threats.

SECTION 8: SUPPLY CHAIN

This section covers the management of the end-to-end process of producing and delivering products.

Topic 1: Supply Chain

The supply chain encompasses the entire process from raw materials to finished products. This topic covers supply chain management principles, including procurement, production, and distribution.

Topic 2: Purchase Management

Purchase management involves acquiring goods and services for a business. This topic covers procurement processes, supplier selection, and contract management.

Topic 3: Warehouse Management

Warehouse management includes overseeing inventory storage and distribution. This topic explores inventory control techniques, warehouse operations, and best practices for efficient warehouse management.

Topic 4: Logistic Models

Logistic models analyze the flow of goods from suppliers to customers. This topic covers various logistics strategies, including transportation planning, route optimization, and supply chain coordination.

Topic 5: Reverse Logistics

Reverse logistics involves managing the return of products from customers back to the company. This topic covers processes for handling returns, recycling, and disposal of products.

Topic 6: Amazon Model

The Amazon Model refers to Amazon's approach to e-commerce and logistics. This topic explores Amazon's business strategies, operational efficiencies, and innovations in e-commerce and supply chain management.

Topic 7: Innovation and Sustainability

Innovation and sustainability focus on developing new solutions and practices for long-term success. This topic covers strategies for fostering innovation and implementing sustainable practices in business operations.

SECTION 9: BIG DATA

This section covers the technologies and methodologies for handling large-scale data analysis.

Topic 1: Introduction to Big Data

Big Data refers to vast and complex datasets that require advanced tools and techniques for analysis. This topic covers the characteristics of Big Data, including volume, velocity, and variety.

Topic 2: Big Data in Projects

This topic explores the use of Big Data technologies in project management. It covers how Big Data can be used to improve project outcomes, including data analysis for project planning and execution.

Topic 3: Agile Methodologies

Agile methodologies focus on iterative development and flexibility. This topic covers Agile principles, including Scrum, Kanban, and the use of Agile techniques in Big Data projects.

Topic 4: Artificial Intelligence

Al technologies are used to analyze and interpret Big Data. This topic explores Al techniques such as machine learning and their applications in processing and analyzing large datasets.

Topic 5: Use Cases in Industry

This topic examines real-world applications of Big Data in various industries. It includes case studies that illustrate how Big Data is used to solve problems and drive innovation.

SECTION 10: DATA MANAGEMENT

This section focuses on the principles and practices of managing data throughout its lifecycle.

Topic 1: Open Data

Open Data refers to data that is freely available for anyone to use. This topic covers the principles of Open Data, including data accessibility, usability, and the benefits of open data for transparency and innovation.

Topic 2: Data Management

Data management involves organizing, storing, and maintaining data effectively. This topic covers data governance, data quality, and techniques for managing data throughout its lifecycle.

Topic 3: Data Privacy

Data privacy focuses on protecting personal and sensitive information. This topic covers privacy regulations, data protection strategies, and practices for ensuring the confidentiality of data.

Topic 4: Data Storage

Data storage involves methods for saving and retrieving data. This topic covers storage solutions, including databases, cloud storage, and backup strategies.

Topic 5: Strategy and Data

This topic explores how data can be used to develop and implement business strategies. It includes methods for aligning data management practices with organizational goals and objectives.

SECTION 11: BUSINESS INTELLIGENCE

This section covers the tools and techniques for analyzing data to support business decision-making.

Topic 1: Introduction to Business Intelligence

Business Intelligence (BI) involves collecting, analyzing, and presenting business data. This topic introduces BI concepts, including data warehousing, reporting, and analytics.

Topic 2: Business Intelligence Systems

BI systems are tools and technologies for data analysis and reporting. This topic covers the components of BI systems, including data sources, data warehouses, and reporting tools.

Topic 3: Design of Reports, Dashboards, and KPIs

Designing effective reports and dashboards involves creating visual representations of data. This topic covers best practices for designing reports, creating dashboards, and defining Key Performance Indicators (KPIs).

Topic 4: Data Sources

Data sources are origins of information used for analysis. This topic explores different types of data sources, including internal databases, external datasets, and data collection methods.

Topic 5: Data Quality

Data quality refers to the accuracy and reliability of data. This topic covers methods for assessing and improving data quality, including data validation, cleansing, and standardization techniques.

SECTION 12: PYTHON, CARTO, POWER BI, AND GOOGLE DATA STUDIO

This section focuses on data analysis and visualization tools and techniques.

Topic 1: Interpretation of Data

Interpreting data involves analyzing results to make informed decisions. This topic covers techniques for understanding data trends, patterns, and insights.

Topic 2: Interactive Visualization with Python

Python is used for creating interactive data visualizations. This topic covers libraries such as Matplotlib and Seaborn for creating graphs and visualizations to explore and present data.

Topic 3: Introduction to Carto

Carto is a platform for spatial data analysis and visualization. This topic covers the basics of using Carto for mapping, geospatial analysis, and visualizing location-based data.

Topic 4: Microsoft Power BI

Power BI is a business analytics tool for visualizing and analyzing data. This topic covers the use of Power BI for creating reports, dashboards, and interactive visualizations.

Topic 5: Google Data Studio

Google Data Studio is a tool for creating reports and dashboards. This topic covers how to use Google Data Studio for data visualization, report creation, and sharing insights.

SECTION 13: DATABASES

This section covers the fundamentals of database systems and technologies.

Topic 1: Database Fundamentals

Database fundamentals include the basic concepts of database management systems. This topic covers database design, normalization, and the relational database model.

Topic 2: Database Technology

Database technology includes tools and techniques for managing and accessing data. This topic covers database management systems, data models, and emerging technologies in the database field.

Topic 3: SQL Practice (MySQL)

SQL (Structured Query Language) is used for querying and managing databases. This topic provides practical experience with MySQL, covering queries, data manipulation, and database management tasks.

Topic 4: SQL Practice (MySQL)

This topic continues the exploration of SQL with advanced MySQL techniques. It covers complex queries, data aggregation, and performance optimization in MySQL databases.

Topic 5: NoSQL Practice (HBase)

NoSQL databases handle unstructured data. This topic provides practical experience with HBase, covering NoSQL concepts, data modeling, and querying techniques for non-relational databases.

Topic 6: Databases for Networks

This topic explores databases used in networked environments. It covers distributed databases, network databases, and the challenges of managing data across multiple locations.

Topic 7: Databases in the Cloud

Cloud databases offer scalable and flexible storage solutions. This topic covers cloud database services, deployment models, and best practices for managing databases in the cloud.

SECTION 14: DATA ANALYSIS AND INTERPRETATION

This section focuses on techniques for analyzing and interpreting data for decision-making.

Topic 1: Data Representation

Data representation involves visualizing data for analysis. This topic covers methods for creating charts, graphs, and other visual tools to represent data effectively.

Topic 2: Measurements

Measurements involve quantifying data for analysis. This topic covers different types of measurements, including scales of measurement, data collection methods, and measurement accuracy.

Topic 3: Regression and Correlation

Regression and correlation analyze relationships between variables. This topic covers techniques for modeling relationships, predicting outcomes, and understanding correlations between data points.

Topic 4: Probability

Probability is the study of chance and uncertainty. This topic covers probability theory, including probability distributions, expected values, and applications in data analysis.

Topic 5: Distributions

Distributions describe how data values are spread. This topic covers different types of distributions, including normal distributions, binomial distributions, and their applications in statistical analysis.

Topic 6: Confidence Intervals

Confidence intervals provide a range of values for statistical estimates. This topic covers methods for calculating confidence intervals and interpreting their implications for data analysis.

Topic 7: Introduction to Hypothesis Testing

Hypothesis testing is used to make decisions based on data. This topic covers the steps of hypothesis testing, including formulating hypotheses, performing tests, and interpreting results.

Topic 8: Statistics with R

R is a programming language for statistical analysis. This topic covers the basics of using R for data analysis, including data manipulation, statistical functions, and creating visualizations.

SECTION 15: ARTIFICIAL INTELLIGENCE

This section covers foundational concepts and techniques in AI for data analysis and problem-solving.

Topic 1: Introduction to Data Analysis with Python

Python is a popular language for data analysis. This topic covers the basics of data analysis with Python, including data manipulation, visualization, and analysis techniques.

Topic 2: Introduction to Machine Learning

Machine learning is a branch of AI focused on building systems that learn from data. This topic covers machine learning concepts, including supervised and unsupervised learning algorithms.

Topic 3: Supervised Machine Learning

Supervised machine learning involves training models on labeled data. This topic covers algorithms for classification and regression tasks, including decision trees, support vector machines, and neural networks.

Topic 4: Unsupervised Machine Learning

Unsupervised machine learning involves finding patterns in unlabeled data. This topic covers techniques such as clustering, dimensionality reduction, and association rule learning.

Topic 5: Reinforcement Learning

Reinforcement learning focuses on training agents to make decisions through rewards and punishments. This topic covers basic concepts of reinforcement learning, including Markov decision processes and Q-learning.

Topic 6: Deep Learning Fundamentals

Deep learning is a subset of machine learning involving neural networks with multiple layers. This topic covers the fundamentals of deep learning, including neural network architectures and training techniques.

SECTION 16: STORAGE TECHNOLOGIES FOR BIG DATA

This section explores technologies and tools for managing and storing large-scale data.

Topic 1: Apache Hadoop

Apache Hadoop is an open-source framework for storing and processing large datasets. This topic covers Hadoop's architecture, including HDFS for storage and MapReduce for processing.

Topic 2: The Hadoop Ecosystem

The Hadoop ecosystem includes tools and technologies that complement Hadoop. This topic explores components such as Hive, Pig, and HBase, and their roles in data processing and analysis.

Topic 3: Apache Spark

Apache Spark is a fast, in-memory data processing engine. This topic covers Spark's features, including its architecture, programming interfaces, and applications for big data processing.

Topic 4: Streaming Technologies

Streaming technologies process data in real-time. This topic covers tools and techniques for handling streaming data, including Apache Kafka and Spark Streaming.

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

Cloud platforms offer scalable solutions for big data storage and processing. This topic explores cloud-based file systems and platforms, including Amazon S3, Google Cloud Storage, and Azure Data Lake.