# Professional Master's Degree

## MBA in Food Industry Management

tech global university

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# Professional Master's Degree

## MBA in Food Industry Management

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Global University**
- Credits: **90 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/us/nutrition/professional-master-degree/master-mba-food-industry-management**

# Index

01

# Introduction

The food industry is constantly growing, although in recent years it has undergone a readjustment and transformation in order to maintain annual profits. A sector always in continuous change thanks to technological advances and that must adapt more and more to the strict regulations of food control and safety. A powerful industry, on the rise and with a guaranteed future for professionals in this field. In this fruitful scenario is born this 100% online degree, which offers the nutritionist the most updated knowledge about the functioning of the food business, marketing strategies and hygiene measures. The multimedia content and the Relearning method, will allow you to delve in a much more dynamic way into the integrated management of companies in this sector.

*Thanks to this 100% online MBA you will be able to keep up to date with the advances in Food Business Management and apply this knowledge in your professional field"*

The large companies that make up the food industry such as Nestlé, Pepsico, Kraft, Danone Group, ConAgra Food, Unilever or Sigma have in common their capacity for innovation through research in the development of new products, a careful process of elaboration, taking care of the safety and hygiene measures to offer quality products. However, to achieve this success, there is an integrated management and the application of effective marketing strategies.

In a market in constant growth and development, the Nutrition professional must be aware of new developments in the sector, where their knowledge provides great value for both companies and end consumers. For this reason, TECH has designed an MBA, where over 12 months, the specialist will be able to keep abreast of the latest developments in the field of food business management and all the components necessary to obtain optimal results.

Therefore, this program will delve into the economics of the industry, the functioning of the industry itself, the relevance of safety, hygiene and product control measures, as well as the study of consumer behavior to make marketing decisions related to food as commercial products.

All this, in addition in an exclusively online format that can be accessed by the graduate from any electronic device with an Internet connection. An academic option designed for the professional who seeks to be up to date in Food Business Management with a university degree of quality, flexible and compatible with the most demanding responsibilities.

This **MBA in Food Industry Management** contains the most complete and up-to-date scientific program on the market. The most important features include:

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

*You are looking at a degree that will show you the most effective marketing strategies used in the Food Industry sector"*

*The multimedia resource library is available 24 hours a day so you can easily consult the latest information on food and public health"*

*Deepen your knowledge of the basics of food business economics and the implementation of new processes and products.*

*Access 24 hours a day to the most updated knowledge on Quality Management and Food Safety.*

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

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

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

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# Objectives

Given the relevance of the Food Industry, it is important to know how it works, as well as the trends of this sector. That is why this program allows the Nutrition professional to obtain the most updated knowledge about the scientific-technical advances of food together with the technological progress, the factors that are influencing the choice and acceptability of the same, as well as the current regulations. The case studies presented in this degree will serve to bring the graduate even closer to the real situation of the sector.

*TECH adapts to you. That is why we offer you an online degree, without classes with fixed schedules and which you can easily access from your computer or Tablet"*

## General Objectives

- Control the mathematical, statistical and economic aspects involved in food businesses
- Analyze trends in food production and consumption
- Appreciate and recognize the sanitary and preventive importance of cleaning, disinfection, disinsecting and pest control programs in the food chain
- Scientific and technical advice on foodstuffs and foodstuff development

*You will gain the most current knowledge about the different techniques and tests used in the industry to predict consumer behavior"*

## Specific Objectives

### Module 1. Mathematics

- Know the basic elements that make up business mathematics
- Master linear and matrix algebra, matrices, matrix transposition, calculus, matrix inversion, systems of equations
- Understand the uses, the different mathematical techniques and methods existing within the financial framework of the company
- Apply mathematical techniques and methods to the financial framework of the company

### Module 2. Statistics

- Master statistical information
- Know the classification of data recording
- Apply ICT and practical systems in food businesses
- Understand probability models

### Module 3. Food, Technology and Culture

- Analyze the historical-cultural evolution of the transformation and consumption of foodstuffs or of specific food groups
- Relate the progress in scientific and technical knowledge of food with the cultural and technological progress
- Identify factors that influence the choice and acceptability of foods
- Distinguish the essential characteristics of food and its branches in the context of today's food industry

### Module 4. Food Business and Economics

- Understand the concept of business, institutional and legal framework, as well as the economic balance of a company
- Acquire knowledge to evaluate the hygienic-sanitary and toxicological risk of a process, food, ingredient and packaging, as well as to identify the possible causes of food spoilage and establish traceability mechanisms
- Know the sources of financing, financial statements and the different functional areas of a company
- Calculate and interpret the values obtained from the Gross Domestic Product and Agricultural Income for economic and business management applications

### Module 5. Food and Public Health

- Know the distinguishing fact of human nutrition, interrelationships between nature and culture
- Identify the concepts of public health and risk prevention related to food consumption habits and food safety
- Understand the fundamentals and general systems of disease prevention, health promotion and protection, as well as the etiologies and epidemiological factors affecting food-borne diseases
- Identify and classify the main social and economic implications of zoonoses

### Module 6. Food Industries

- Control and optimize processes and products in the food industry: Food manufacturing and preservation
- Develop new processes and products
- Understand the industrial processes of food processing and preservation, as well as packaging and storage technologies
- Analyze process and product control and optimization systems applied to the main types of food industries
- Apply the knowledge of transformation and preservation processes to the development of new processes and products

### Module 7. Food Hygiene and Safety

- Develop, apply, evaluate and maintain appropriate hygiene practices, food safety and risk control systems practices applying current legislation
- Contribute to consumer protection within the framework of food safety
- Elaborate and implement for a food and catering company, food quality control systems (Hazard Analysis and Critical Control Points and General Hygiene Plans)

### Module 8. Food Quality and Management

- Design and evaluate tools that promote food safety management throughout the food chain to protect public health
- Identify and interpret the requirements of the food safety management standard (UNE EN ISO 22000) for its subsequent application and evaluation in food chain operators
- Develop, implement, evaluate and maintain appropriate hygiene practices, food safety and risk control systems
- Participate in the design, organization and management of the different food services
- Collaborate in the implementation of quality systems
- Evaluate, control and manage aspects of traceability in the food supply chain

### Module 9. Food Safety Assessment

- Validate, verify and audit food safety control systems
- Know and describe the basic principles of the Hazard Analysis and Critical Control Point (HACCP) system
- Know and understand the functioning of the HACCP plan and its application in different food industries
- Identify and know the hygienic characteristics of food groups of animal, vegetable and processed foods

### Module 10. Marketing and Consumer Behavior

- Know and understand the concepts, tools and logic of marketing as a business activity inherent to food production
- Learn how to make decisions related to product marketing such as finding marketing opportunities, designing strategies and actions necessary to successfully market food products
- Knowledge of market analysis procedures and consumer behavior to advise companies in the development of new foods
- Design and application of different product tests applied to food to predict the behavior of the target population

### Module 11. Leadership, Ethics and Social Responsibility in Companies

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

### Module 12. People and Talent Management

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

### Module 13. Economic and Financial Management

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

### Module 14. Commercial Management and Strategic Marketing

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

### Module 15. Executive Management

- Define the concept of General Management and its relevance in business management
- Evaluate the roles and responsibilities of the manager in the organizational culture
- Analyze the importance of operations management and quality management in the value chain
- Develop interpersonal communication and public speaking skills for the formation of spokespersons

03

# Skills

The syllabus of this degree will allow the specialist to further enhance their skills in the field of management of food companies, as well as their skills for the implementation of strategies based on solid knowledge of the market economy, the latest trends in marketing and all while respecting the existing food safety standards. These are goals that will be easier to achieve thanks to the pedagogical resources provided by TECH in this degree.

*This program will allow you to expand your competencies and skills in the application of the latest business techniques in the Food Industry"*

## General Skills

- Know and apply the appropriate market techniques in the food industry field
- Provide preventive and corrective measures to solve hazards that arise periodically at any stage of the food chain
- Identify the different types of markets such as monopolistic, oligopolistic and monopolistic competition markets
- Recognize the role of cultural norms in food customs and regulations, as well as in the role of food in society

*It delves into the organization and management of the various food services through content available 24 hours a day"*



## Specific Skills

- Identify health problems associated with the use of food additives
- Contribute towards consumer protection within the framework of food safety and quality
- Participate in the design, organization and management of different food services
- Identify the mechanisms and parameters for the control of processes and equipment in the food industry
- Know widely the individual and social food behaviors
- Master the transformation and preservation processes specific to the main types of food industries

04

# Course Management

TECH is continually committed to academic excellence. For this reason, each of its programs has teaching teams of the highest prestige. These experts have extensive experience in their professional fields and, at the same time, have achieved significant results with their empirical research and field work. In addition, these specialists play a leading role within the university program, as they are responsible for selecting the most up-to-date and innovative content for inclusion in the syllabus. At the same time, they participate in the development of numerous multimedia resources of high pedagogical rigor.

*A complete teaching staff, composed of experts with extensive experience, will be at your disposal in this TECH program"*

## International Guest Director

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

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

Jennifer Dove has demonstrated her commitment to continuous professional development, actively participating in networks of Human Resources professionals and contributing to the incorporation of numerous workers in different companies. After earning her bachelor's degree in **Organizational Communication from the University of** Miami, she has held senior recruiting positions at companies in a variety of fields.

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

## Ms. Dove, Jennifer

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

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

## International Guest Director

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

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

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

## Mr. Gauthier, Rick

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

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

## International Guest Director

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

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

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

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

## Mr. Arman, Romi

- Chief Digital Officer (CDO) at Shell Energy Corporation, London, United Kingdom
- Global Head of eCommerce and Customer Service at Shell Energy Corporation
- National Key Account Manager (Automotive OEM and Retail) for Shell in Kuala Lumpur, Malaysia
- Senior Management Consultant (Financial Services Sector) for Accenture from Singapore
- Graduate of the University of Leeds
- Postgraduate Diploma in Business Applications of AI for Senior Executives from London Business School
- CCXP Customer Experience Professional Certification
- Executive Digital Transformation Course by IMD

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

## International Guest Director

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

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

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

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

## Mr. Arens, Manuel

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

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

## International Guest Director

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

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

As **Global Brand and Merchandising Director** at **Giorgio Armani**, he has overseen a variety of **Marketing strategies** for **apparel** and **accessories**. His tactics have also focused on **retail** and **consumer needs** and **behavior**. In this role, La Sala has also been responsible for shaping the marketing of products in different markets, acting as **team leader** in the **Design, Communication** and **Sales departments**.

On the other hand, in companies such as **Calvin Klein** or **Gruppo Coin**, he has undertaken projects to boost the **structure**, **development** and **marketing** of **different collections**. In turn, he has been in charge of creating **effective calendars** for **buying and selling campaigns.**
He has also been in charge of the **terms**, **costs**, **processes** and **delivery times** of different operations.

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

## Mr. La Sala, Andrea

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

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

## International Guest Director

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

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

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

In terms of education, the executive has several Master's degrees and postgraduate studies at prestigious centers such as the **University of Berkeley**, in the United States, and the **University of Copenhagen**, in Denmark. Through this continuous updating, this expert has achieved cutting-edge skills. Because of this, he has come to be considered a **born leader** of the **new global economy**, entered on the impulse of data and its infinite possibilities.

## Mr. Gram, Mick

- Director of Business Intelligence and Analytics at Red Bull, Los Angeles, United States
- Business Intelligence Solutions Architect for Walmart Data Café
- Independent Business Intelligence and Data Science Consultant
- Business Intelligence Director at Capgemini
- Chief Analyst at Nordea
- Chief Business Intelligence Consultant for SAS
- Executive Education in AI and Machine Learning at UC Berkeley College of Engineering
- Executive MBA in e-commerce at the University of Copenhagen
- Bachelor's Degree and Master's Degree in Mathematics and Statistics at the University of Copenhagen

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

## International Guest Director

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

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

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

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

## Mr. Stevenson, Scott

- Digital Marketing Director at Warner Bros. Discovery, Burbank, United States
- Traffic Manager at Warner Bros. Entertainment.
- Master's Degree in Creative Writing from the University of California
- Degree in Telecommunications from the University of Florida

*Achieve your academic and professional goals with the best qualified experts in the world! The teachers of this MBA will guide you throughout the learning process"*

## International Guest Director

Eric Nyquist is an outstanding professional in the **international sports field**, who has built an impressive career, standing out for his**strategic leadership** and his ability to drive change and **innovation** in **top-level** sports organizations.

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

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

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

## Mr. Nyquist, Eric

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

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

## International Guest Director

Roberto Buttini is an outstanding manager with more than 30 years of experience in the food industry. Particularly, he has specialized in areas such as Research & Development, Food Processing, Innovation and Safety & Hygiene. Throughout his career, he has demonstrated a strong commitment to improving the quality of ingestion products, applying solutions that benefit both consumers and the planet. His work has focused on ensuring excellence in food manufacturing, driving efficient and sustainable processes that meet the highest quality standards.

Throughout his career, he has worked in several renowned companies such as Barilla, one of the leading Italian companies in the Nutrition sector. There he has held several executive positions such as Vice President of Global Quality and Food Safety. In addition, he was Director of Research, Development and Quality at Kamps - Lieken, acquiring key skills in the management of multidisciplinary teams, R&D strategies and in the implementation of disruptive quality systems. He also worked as a scientist at Enel, where he honed his analytical and research skills in complex technological contexts.

Internationally, he has gained recognition for his contribution to the food industry. He has been a reference in the design of strategies that secure products in multiple global markets. His work has allowed him to acquire worldwide prestige, consolidating his position as a leader in his field. He has been awarded for his focus on sustainability and corporate social responsibility, increasingly raising standards.

He has also contributed to scientific knowledge with specialized articles on food processing. His focus on change has enabled him to be at the forefront of developing safer practices, with a significant impact on improving systems.

## Mr. Buttini, Roberto

- Vice President of Global Quality and Food Safety at Barilla Group, Parma, Italy
- Product Development Director - Bakery Europe Mild & Beverage Categories at Barilla Group
- Director of Research, Development and Quality at Kamps - Lieken Scientist at Enel
- Specialization in Management at the Italian Management Institute Natale Toffoloni
- Specialization in Food Technology at the University of Parma, Italy
- Degree in Chemistry at the University of Parma, Italy

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

05

# Structure and Content

TECH has developed a curriculum whose main objective is to provide the latest information on Food Business Management. To this end, it has developed a syllabus that starts from the most advanced knowledge of business economics, and then delves into the latest technological advances, culture and the process of food product development itself. Video summaries, interactive diagrams and specialized readings will also enable the graduate to be up to date in food hygiene, marketing and quality management.

*Enter a program that will bring you up to date on the latest hygienic measures applied to meat, dairy and fish products"*

## **Module 1.** Mathematics

1.1. Basic Elements of Linear and Matrix Algebra
- 1.1.1. The Vector Space of IRn , Functions and Variables
  - 1.1.1.1. Graphical Representation of Sets in R
  - 1.1.1.2. Basic Concepts of Functions of Several Real Variables. Operations with Functions
  - 1.1.1.3. Function Types
  - 1.1.1.4. Weierstrass' Theorem
- 1.1.2. Optimization with Inequality Constraints
  - 1.1.2.1. Two-Variable Graphical Method
- 1.1.3. Function Types
  - 1.1.3.1. Separate Variables
  - 1.1.3.2. Polynomial Variables
  - 1.1.3.3. Rational Variables
  - 1.1.3.4. Quadratic Forms

1.2. Matrices: Types, Concepts and Operations
- 1.2.1. Basic Definitions
  - 1.2.1.1. Order Matrix Mxn
  - 1.2.1.2. Square Matrices
  - 1.2.1.3. Identity Matrix
- 1.2.2. Matrix Operations
  - 1.2.2.1. Matrix Addition
  - 1.2.2.2. Scalar Multiplication
  - 1.2.2.3. Matrix Multiplication

1.3. Transpose
- 1.3.1. Diagonalizable Matrix
- 1.3.2. Transpose Properties
- 1.3.3. Involution

1.4. Determinants: Calculation and Definition
- 1.4.1. The Concept of Determinants
  - 1.4.1.1. Determinant Definition
  - 1.4.1.2. Square Matrix of Order 2.3 and Greater Than 3



1.4.2. Triangular Matrices
1.4.2.1. Determinant of Triangular Matrices
1.4.2.2. Determinant of Non-Triangular Square Matrices
1.4.3. Properties of Determinants
1.4.3.1. Simplifying Calculations
1.4.3.2. Calculation in any Case
1.5. Invertable Matrices
1.5.1. Properties of Invertable Matrices
1.5.1.1. The Concept of Inversion
1.5.1.2. Definitions and Basic Concepts
1.5.2. Invertable Matrix Calculation
1.5.2.1. Methods and Calculation
1.5.2.2. Exceptions and Examples
1.5.3. Expression Matrices and Matrix Equations
1.5.3.1. Expression Matrices
1.5.3.2. Matrix Equations
1.6. Solving Systems of Equations
1.6.1. Linear Equations
1.6.2. Discussion of the System. Rouché–Capelli Theorem
1.6.3. Cramer's Rule: Solving the System
1.6.4. Homogeneous Systems
1.6.5. Vector Spaces
1.6.5.1. Properties of Vector Spaces
1.6.5.2. Linear Combination of Vectors
1.6.5.3. Linear Dependence and Independence
1.6.5.4. Coordinate Vectors
1.6.5.5. The Basis Theorem
1.7. Quadratic Forms
1.7.1. Concept and Definition of Quadratic Forms
1.7.2. Quadratic Matrices
1.7.2.1. Law of Inertia for Quadratic Forms
1.7.2.2. Study of the sign by eigenvalues
1.7.2.3. Study of the Sign by Minors

1.8. Functions of One Variable
- 1.8.1. Analysis of the Behavior of a Magnitude
  - 1.8.1.1. Local Analysis
  - 1.8.1.2. Continuity
  - 1.8.1.3. Restricted Continuity

1.9. Limits of Functions, Domain and Image in Real Functions
- 1.9.1. Multi-variable Functions
  - 1.9.1.1. Vector of Several Variables
- 1.9.2. The Domain of a Function
  - 1.9.2.1. Concept and Applications
- 1.9.3. Function Limits
  - 1.9.3.1. Limits of a Function at a Point
  - 1.9.3.2. Lateral Limits of a Function
  - 1.9.3.3. Limits of Rational Functions
- 1.9.4. Indeterminacy
  - 1.9.4.1 Indeterminacy in Functions with Roots
  - 1.9.4.2. Indetermination 0/0
- 1.9.5. The Domain and Image of a Function
  - 1.9.5.1. Concept and Characteristics
  - 1.9.5.2. Domain and Image Calculation

1.10. Derivatives: Behavior Analysis
- 1.10.1. Derivatives of a Function at a Point
  - 1.10.1.1. Concept and Characteristics
  - 1.10.1.2. Geometric Interpretation
- 1.10.2. Differentiation Rules
  - 1.10.2.1 Derivative of a Constant
  - 1.10.2.2. Derivative of a Sum or Differentiation
  - 1.10.2.3. Derivative of a Product
  - 1.10.2.4. Derivative of an Opposite Function
  - 1.10.2.5. Derivative of an Compounds Function

1.11. Application of Derivatives to Study Functions
- 1.11.1. Properties of Differentiable Functions
  - 1.11.1.1. Maximum Theorem
  - 1.11.1.2. Minimum Theorem
  - 1.11.1.3. Rolle's Theorem
  - 1.11.1.4. Mean Value Theorem
  - 1.11.1.5. L'Hôpital's Rule
- 1.11.2. Valuation of Economic Quantities
  - 1.11.2.1. Differentiable Functions

1.12. Function Optimization for Several Variables
- 1.12.1. Function Optimization
  - 1.12.1.1. Optimization with Equality Constraint
  - 1.12.1.2. Critical Points
  - 1.12.1.3. Relative Extremes
- 1.12.2. Convex and Concave Functions
  - 1.12.2.1. Properties of Convex and Concave Functions
  - 1.12.2.2. Inflection Points
  - 1.12.2.3. Growth and Decay

1.13. Antiderivatives
- 1.13.1. Antiderivatives
  - 1.13.1.1. Basic Concepts
  - 1.13.1.2. Calculation Methods
- 1.13.2. Immediate Integrals
  - 1.13.2.1. Properties of Immediate Integrals
- 1.13.3. Integration Methods
  - 1.13.3.1. Rational Integrals

1.14. Definite Integrals
- 1.14.1. Barrow's Fundamental Theorem
  - 1.14.1.1. Definition of the Theorem
  - 1.14.1.2. Calculation Basis
  - 1.14.1.3. Applications of the Theorem



1.14.2. Curve Cutoff in Definite Integrals
1.14.2.1. Concept of Curve Cutoff
1.14.2.2. Calculation Basis and Operations Study
1.14.2.3. Applications of Curve Cutoff Calculation
1.14.3. Mean Value Theorem
1.14.3.1. Concept and Closed Interval Theorem
1.14.3.2. Calculation Basis and Operations Study
1.14.3.3. Applications of the Theorem

## **Module 2.** Statistics

2.1. Introduction to Statistics
2.1.1. Basic Concepts
2.1.2. Types of Variables
2.1.3. Statistical Information
2.2. Data Record Sorting and Classifying
2.2.1. Description of Variables
2.2.2. Frequency Distribution Table
2.2.3. Quantitative and Qualitative Frequency Distribution Tables
2.3. Apply Information and Communication Technologies (ICT) and Practical Systems
2.3.1. Basic Concepts
2.3.2. Tools
2.3.3. Data Representation
2.4. Summary Data Measures I
2.4.1. Descriptive Statistics
2.4.2. Centralization Measurements
2.4.3. Measures of Dispersion
2.4.4. Measures of Shape and Position
2.5. Summary Data Measures II
2.5.1. Box Plots
2.5.2. Identifying Outliers
2.5.3. Transformation

2.6. Statistical Analysis of the Relationship between the Two Variables
- 2.6.1. Tabulation
- 2.6.2. Contingency Tables and Graphical Representations
- 2.6.3. Linear Relationship between Quantitative Variables

2.7. Time Series and Index Numbers
- 2.7.1. Time Series
- 2.7.2. Rates of Change
- 2.7.3. Index Numbers
- 2.7.4. The Consumer Price Index (CPI) and Deflated Time Series

2.8. Introduction to Probability: Calculation and Basic Concepts
- 2.8.1. Basic Concepts
- 2.8.2. Set Theory
- 2.8.3. Probability Calculation

2.9. Random Variables and Probability Distributions
- 2.9.1. Random Variables
- 2.9.2. Variable Measurements
- 2.9.3. Function of Probability

2.10. Probability Models for Random Variables
- 2.10.1. Probability Calculation
- 2.10.2. Discrete Random Variables
- 2.10.3. Continuous Random Variables
- 2.10.4. Models Derived from Normal Distribution

## **Module 3.** Food, Technology and Culture

3.1. Introduction to Food Culture
- 3.1.1. Food and Nutrition: Man as an Omnivorous Animal
- 3.1.2. Concept of Culture and Eating Behavior
- 3.1.3. Human Nutrition in Different Types of Societies
- 3.1.4. Concept of Dietary Adaptation: Examples of Dietary Adaptation

3.2. Factors that Influence Eating
- 3.2.1. Ideological Meaning of Food
- 3.2.2. Diet and Gender
- 3.2.3. Patterns of Commensality in Different Cultures: Production, Consumption and Behavior

3.3. Religion and Food
- 3.3.1. Permitted and Prohibited Foods
- 3.3.2. Relationship between Food and Religious Rituals
- 3.3.3. Religion-Related Dietary Practices and Behaviors

3.4. Historical Basis of Food
- 3.4.1. Major Changes in Human Nutrition at Different Stages of History
- 3.4.2. Prehistory
- 3.4.3. The Ancient Age
- 3.4.4. Middle Ages
- 3.4.5. Impact of the Discovery of America on European Food and the New World
- 3.4.6. The Modern Age

3.5. Scientific Advances and Food
- 3.5.1. The Industrial Revolution
- 3.5.2. Impact of Scientific Discoveries and Technological Development in the Food Industry

3.6. Contemporary Food I
- 3.6.1. Socioeconomic and Demographic Factors that Condition the Current Diet
- 3.6.2. Food and Immigration
- 3.6.3. Man and Abundance in the World, Myths and Facts

3.7. Contemporary Food II
- 3.7.1. New Food Trends
- 3.7.2. Rise of Mass Catering and Fast Food
- 3.7.3. Interest in Diet and Health

3.8. Food Acceptability
- 3.8.1. Physiological and Psychological Conditions
- 3.8.2. Food Quality Concept
- 3.8.3 Evaluation of Food Acceptability

3.9. Communication Techniques
- 3.9.1. Food Marketing
- 3.9.2. Marketing Elements
- 3.9.3. Food Advertising Resources
- 3.9.4. Influence of Advertising on Eating Behavior

3.10. Sociocultural Factors of Nutrition
- 3.10.1. Social Relations
- 3.10.2. Expression of Feelings, Prestige and Power
- 3.10.3. Neolithic and Paleolithic Social Groups

## **Module 4.** Food Industry and Economics

4.1. Basic Concepts of Economy
- 4.1.1. Economics and the Need for Choice
- 4.1.2. The Production Possibility Frontier and Its Applications in Production
- 4.1.3. Islam and Market Economy
- 4.1.4. The Limitations of the Market Economy System and Mixed Economies

4.2. Demand and Supply Curves
- 4.2.1. Participant Agents in the Market. Demand and Supply
- 4.2.2. Market Balance
- 4.2.3. Shifts in Supply and Demand Curves

4.3. Applications of Supply and Demand Analysis
- 4.3.1. The Decline in Agricultural Prices
- 4.3.2. Price Ceilings and Floors
- 4.3.3. Establishment of Subsidized or Support Prices
- 4.3.4. Main Systems Used to Assist Farmers

4.4. Demand for Goods
- 4.4.1. Consumer Demand and Utility
- 4.4.2. Market Demand
- 4.4.3. Demand and the Concept of Elasticity
- 4.4.4. The Elasticity of Demand and Total Income
- 4.4.5. Other Elasticities

4.5. Production in the Company and Production Costs
- 4.5.1. Short-term Production
- 4.5.2. Long-term Production
- 4.5.3. The Company's Short-term Costs
- 4.5.4. Long-term Costs and Returns to Scale
- 4.5.5. The Company's Production Decisions and Profit Maximization

4.6. Market Typologies
- 4.6.1. Competition Forms
- 4.6.2. Perfect Competition Markets
- 4.6.3. The Competitive Company and the Decision to Produce
- 4.6.4. Basic Characteristics of Imperfect Competition
- 4.6.5. Monopoly, Oligopoly and Monopolistic Competition

4.7. Economic Macro-magnitudes
- 4.7.1. Gross Domestic Product and General Price Index
- 4.7.2. Public Income and Investment
- 4.7.3. Agricultural Macro-magnitudes

4.8. Company's Organizational Structure. Types of Businesses
- 4.8.1. Individual Entrepreneur
- 4.8.2. Unincorporated Company
- 4.8.3. Legal Entity
- 4.8.4. Corporate Social Responsibility
- 4.8.5. Legal and Tax Environment

4.9. The Company's Functional Areas
- 4.9.1. Company Financing: Borrowed and Equity Funds
- 4.9.2. Production in the Company
- 4.9.3. Procurement Area and Inventory Management Methods
- 4.9.4. Human Resources

4.10. Analysis of the Company's Financial Statements
- 4.10.1. Equity Analysis
- 4.10.2. Financial Analysis
- 4.10.3. Economic Analysis

## **Module 5.** Food and Public Health

5.1. Human Nutrition and Historical Evolution
- 5.1.1. The Natural Element and the Cultural Element Biological Evolution, Tool Handling and Tool Making
- 5.1.2. The Use of Fire, Hunter-Gatherer Profiles Butcher or vegetarian
- 5.1.3. Biological, Genetic, Chemical and Mechanical Technologies Involved in Food Processing and Preservation

5.1.4. Food in Roman Times
5.1.5. Influence of the Discovery of America
5.1.6. Food in Developed Countries
5.1.6.1. Food Distribution Chains and Networks
5.1.6.2. The Global Trade "Network" and Small Businesses

5.2. Socio-Cultural Significance of Food
5.2.1. Food and Social Communication Social and Individual Relationships
5.2.2. Emotional Influence of Foods Parties and Celebrations
5.2.3. Relationships Between Diets and Religious Precepts Food & Christianity, Hinduism, Buddhism, Judaism, Islam
5.2.4. Natural Foods, Ecological Foods, and Organic Foods
5.2.5. Typology of Diets: The Standard Diet, Slimming Diets, Curative Diets, Magical Diets and Absurd Diets
5.2.6. Food Reality and Food Perception Protocol for Family and Institutional Meals

5.3. Communication and Eating Behavior
5.3.1. Written Media: Specialist Magazines Disseminating Magazines and Professional Journals
5.3.2. Audiovisual Media: Radio, Television, Internet. Packaging; Advertising
5.3.3. Eating Behavior: Motivation and Intake
5.3.4. Food Labeling and Consumption: Development of Likes and Dislikes
5.3.5. Sources of Variation in Food Preferences and Attitudes

5.4. Concept of Health and Diseases and Epidemiology
5.4.1. Health Promotion and Disease Prevention
5.4.2. Characteristics of Foods. Food as a Vehicle for Disease
5.4.3. Epidemiological Methods: Descriptive, Analytical, Experimental, Predictive

5.5. Sanitary, Social and Economic Significance of Zoonosis
5.5.1. Zoonosis Classification
5.5.2. Factors
5.5.3. Assessment Criteria
5.5.4. Action Plans

5.6. Epidemiology and Prevention of Diseases Transmitted by Meat and Meat By-Products and Fish and Fish By-Products
5.6.1. Introduction. Epidemiological Factors of Meat-Borne Diseases
5.6.2. Consumption-based Diseases
5.6.3. Preventive Measures for Diseases Transmitted by Meat Products
5.6.4. Introduction. Epidemiological Factors of Fish Borne Diseases
5.6.5. Consumption-based Diseases
5.6.6. Prevention

5.7. Epidemiology and Prevention of Diseases Transmitted by Milk and Milk By-Products
5.7.1. Introduction. Epidemiological Factors of Meat-Borne Diseases
5.7.2. Consumption-based Diseases
5.7.3. Preventive Measures for Diseases Transmitted by Dairy Products

5.8. Epidemiology and Prevention of Diseases Transmitted by Bread, Pastries, Confectionery and Cakes
5.8.1. Introduction. Epidemiological Factors
5.8.2. Consumption-based Diseases
5.8.3. Prevention

5.9. Epidemiology and Prevention of Diseases Transmitted by Preserved and Semi-Preserved Foods, and by Edible Vegetables and Mushrooms
5.9.1. Introduction. Epidemiological Aspects of Preserved and Semi-Preserved Foods
5.9.2. Diseases Caused by Consumption of Canned and Semi-Canned Foods
5.9.3. Sanitary Prevention of Diseases Transmitted by Preserved and Semi-Preserved Foods
5.9.4. Introduction. Epidemiological Factors in Vegetables and Mushrooms
5.9.5. Diseases Caused by Consumption of Vegetables and Mushrooms
5.9.6. Sanitary Prevention of Diseases Transmitted by Vegetables and Mushrooms

5.10. Health Problems Arising from the Use of Additives, the Source of Food Poisoning
5.10.1. Toxins of Natural Origin in Food
5.10.2. Toxics Due to Incorrect Handling
5.10.3. Use of Food Additives

## **Module 6.** Food Industries

6.1. Cereals and By-products I
- 6.1.1. Cereals: Production and Consumption
  - 6.1.1.1. Cereal Classification
  - 6.1.1.2. Current State of Research and Industry Situation
- 6.1.2. Basic Concepts of Cereal Grains
  - 6.1.2.1. Methods and Equipment for the Characterization of Flours and Bread Doughs
  - 6.1.2.2. Rheological Properties during Kneading, Proofing and Baking
- 6.1.3. Cereal Products: Ingredients, Additives and Coadjuvants Classification and Effects

6.2. Cereals and By-products II
- 6.2.1. Baking Process: Stages, Changes Produced and Equipment Used
- 6.2.2. Instrumental, Sensory and Nutritional Characterization of Cereal-derived Products
- 6.2.3. Application of Cold in Bakery. Frozen Pre-baked Breads. Process and Product Quality
- 6.2.4. Gluten-free Products Derived from Cereals. Formulation, Process and Quality Characteristics
- 6.2.5. Food Pastas. Ingredients and Process. Types of Pasta
- 6.2.6. Innovation in Bakery Products. Trends in Product Design

6.3. Milk and Dairy Products. Eggs and Egg Products I
- 6.3.1. Hygienic-sanitary Milk Quality
  - 6.3.1.1. Origin and Levels of Contamination. Initial and Contaminating Microbiota
  - 6.3.1.2. Presence of Chemical Contaminants: Residues and Pollutants
  - 6.3.1.3. Hygiene Influence in the Milk Production and Marketing Chain
- 6.3.2. Dairy Production. Milk Synthesis
  - 6.3.2.1. Factors Influencing the Composition of Milk: Extrinsic and Intrinsic Factors
  - 6.3.2.2. Milking: Good Process Practices
- 6.3.3. On-farm Milk Pretreatment: Filtration, Refrigeration and Alternative Preservation Methods
- 6.3.4. Treatments in the Dairy Industry: Clarification and Bactofugation, Skimming, Standardization, Homogenization, Deaeration, Pasteurization, Definition, Procedures, Treatment Temperatures and Limiting Factors
  - 6.3.4.1. Types of Pasteurizers. Packaging Quality Control Sterilization. Definition
  - 6.3.4.2. Methods: Conventional, UHT, Other Systems. Packaging Quality Control Manufacturing Defects
  - 6.3.4.3. Types of Pasteurized and Sterilized Milk. Selection of Milk. Milkshakes and Flavored Milks. Mixing Process. Enriched Mks. Enrichment Process
  - 6.3.4.4. Evaporated Milk. Condensed Milk
- 6.3.5. Preservation and Packaging Systems
- 6.3.6. Quality Control of Powdered Milk
- 6.3.7. Milk Packaging Systems and Quality Control

6.4. Milk and Dairy Products. Eggs and Egg Products I
- 6.4.1. Dairy Products. Creams and Butters
- 6.4.2. Manufacturing Process. Continuous Manufacturing Methods. Packaging and Preservation. Manufacturing Defects and Alterations.
- 6.4.3. Fermented Milk. Yogurt Milk Preparatory Treatments. Processes and Elaboration Systems
  - 6.4.3.1. Types of Yogurt. Problems in Elaboration. Quality Control
  - 6.4.3.2. BIO Products and Other Acidophilic Milks
- 6.4.4. Cheese Making Technology: Preparatory Milk Treatments
  - 6.4.4.1. Obtaining the Curd: Syneresis. Pressed. Salted
  - 6.4.4.2. Water Activity in Cheese. Brine Control and Conservation
  - 6.4.4.3. Cheese Ripening: Agents Involved. Factors that Determine Ripening Effects of Contaminating Biota
  - 6.4.4.4. Toxicological Problems of Cheese
- 6.4.5. Additives and Antifungal Treatments
- 6.4.6. Ice Cream. Features. Types of Ice Cream. Manufacturing Process
- 6.4.7. Eggs and Egg Products
  - 6.4.7.1. Fresh Egg: Processing of Fresh Eggs as a Raw Material for the Production of Egg Products
  - 6.4.7.2. Egg Products: Liquid, Frozen and Dehydrated

6.5. Vegetable Products I
- 6.5.1. Physiology and Post-harvest Technology. Introduction
- 6.5.2. Fruit and Vegetable Production, the Need for Post-harvest Conservation
- 6.5.3. Respiration: Respiratory Metabolism and Its Influence on Post-harvest Preservation and Deterioration of Vegetables
- 6.5.4. Ethylene: Synthesis and Metabolism. Implication of Ethylene in the Regulation of Fruit Ripening
- 6.5.5. Fruit Ripening: the Ripening Process, Generalities and Its Control
  - 6.5.5.1. Climacteric and Non-climacteric Ripening
  - 6.5.5.2. Compositional Changes: Physiological and Biochemical Changes during Ripening and Preservation of Fruits and Vegetables.

6.6. Vegetable Products II
- 6.6.1. Principle of Fruit and Vegetable Preservation by the Control of Environmental Gases. Mode of Action and Its Applications in the Preservation of Fruits and Vegetables
- 6.6.2. Refrigerated Conservation. Temperature Control in the Preservation of Fruits and Vegetables
  - 6.6.2.1. Technological Methods and Applications
  - 6.6.2.2. Cold Damage and Its Control
- 6.6.3. Transpiration: Control of Water Loss in Fruit and Vegetable Preservation
  - 6.6.3.1. Physical Principles. Control Systems
- 6.6.4. Post-harvest Pathology: Main Deteriorations and Rots during Fruit and Vegetable Preservation. Control Systems and Methods
- 6.6.5. IV Gamma Products
  - 6.6.5.1. Physiology of Vegetable Products: Handling and Preservation Technologies

6.7. Vegetable Products III
- 6.7.1. Processing of Canned Vegetables: General Description of a Characteristic Canning Line for Vegetables
  - 6.7.1.1. Examples of the Main Types of Canned Vegetables and Pulses
  - 6.7.1.2. New Products of Vegetable Origin: Cold Soups
  - 6.7.1.3. General Description of a Typical Fruit Packaging Line
- 6.7.2. Juice and Nectar Processing: Juice Extraction and Juice Treatments
  - 6.7.2.1. Aseptic Processing, Storage and Packaging Systems
  - 6.7.2.2. Production Line Examples of the Main Types of Juices
  - 6.7.2.3. Production and Preservation of Semi-finished Products: Cremogenated Products
- 6.7.3. Production of Jams, Jellies and Preserves: Production and Packaging Process
  - 6.7.3.1. Examples of Processing Lines; Characteristics
  - 6.7.3.2. Additives Used in the Manufacture of Jams and Marmalades

6.8. Alcoholic Beverages and Oils
- 6.8.1. Alcoholic Beverages: Wine. Manufacturing Process
  - 6.8.1.1. Beer: Brewing Process. Types
  - 6.8.1.2. Spirits and Liquors: Production Processes and Types
- 6.8.2. Oils and Fats: Introduction
  - 6.8.2.1. Olive Oil: Olive Oil Extraction System
  - 6.8.2.2. Oilseed Oils. Extraction
- 6.8.3. Fats of Animal Origin: Refining of Fats and Oils

6.9. Meat and Meat By-products
- 6.9.1. Meat Industry: Production and Consumption
- 6.9.2. Classification and Functional Properties of Muscle Proteins: Myofibrillar, Sarcoplasmic and Stromal Proteins
  - 6.9.2.1. Muscle-to-Meat Conversion: Porcine Stress Syndrome
- 6.9.3. Meat Freezing Factors Affecting the Quality of Meat for Direct Consumption and Industrialization
- 6.9.4. Curing Chemistry: Ingredients, Additives and Curing Coadjuvants
  - 6.9.4.1. Industrial Curing Processes: Dry and Wet Curing Processes
  - 6.9.4.2. Nitrite Alternatives
- 6.9.5. Raw and Raw Marinated Meat Products: Fundamentals and Problems of Preservation. Characteristics of Raw Materials
  - 6.9.5.1. Types of Products Manufacturing Operations
  - 6.9.5.2. Alterations and Defects

6.9.6. Cooked Sausages and Cooked Hams: Basic Principles of the Preparation of Meat Emulsions. Characteristics and Selection of Raw Materials
6.9.6.1. Technological Manufacturing Operations. Industrial Systems
6.9.6.2. Alterations and Defects
6.10. Seafood
6.10.1. Fish and Shellfish. Characteristics of Technological Interest
6.10.2. Main Industrial Fishing and Shellfishing Gear
6.10.2.1. Unit Operations in Fish Technology
6.10.2.2. Fish Cold Preservation
6.10.3. Salting, Pickling, Drying and Smoking: Technological Aspects of Fish Manufacturing
6.10.3.1. Characteristics of the Final Product. Performance
6.10.4. Marketing

## **Module 7.** Food Hygiene and Safety

7.1. Introduction to Food Safety
7.1.1. Food Hygiene and Safety Concept
7.1.1.1. Historical Development. Current Importance
7.1.1.2. Global Food Security Policy Objectives and Strategies
7.1.2. Specific Food Quality Assurance Programs
7.1.3. Food Safety at the Consumer Level
7.1.4. Traceability Concept and Application in the Food Industry
7.2. Self-control Systems in the Food Sector
7.2.1. General Hygiene Plans (GHP)
7.2.1.1. Objectives and Current Importance
7.2.1.2. Basic Principles and Basis for Their Implementation in Food Companies
7.2.2. Food Handling
7.2.3. Preventive Measures and Process Hygiene in the Food Industry and in Catering
7.3. Hazard Analysis and Critical Control Point System (HACCP)
7.3.1. General Principles of the HACCP System
7.3.2. Flowchart Design and Verification
7.3.3. Risk Evaluation Systems and Hazard Assessment Systems
7.3.4. Implementation of Control Systems, Critical Limits, Corrective Measures and Verification Systems
7.3.5. Development of a Management Chart and Its Application in the Food Industry
7.4. Specific Plans in the Food Industry
7.4.1. Training Plan for Handlers
7.4.1.1. Execution of the Training Plan. Types of Trained Activities
7.4.1.2. Training Methodology
7.4.1.3. Monitoring, Surveillance and Corrective Measures
7.4.1.4. Plan Verification
7.4.2. Supplier Approval Plan
7.4.2.1. Control Procedures, Verification and Corrective Measures of an Approval Plan
7.4.2.2. Hygiene in the Transport of Goods
7.4.2.3. Hygiene Standards for the Reception of Fresh, Manufactured, Non-perishable, Packaged and Others
7.4.3. Cleaning and Disinfection Plan (L + D)
7.4.3.1. Biofilms and Their Impact on Food Safety
7.4.3.2. Cleaning and Disinfection Methods
7.4.3.3. Types of Detergents and Disinfection
7.4.3.4. Cleaning and Disinfection Plan Control and Verification Systems
7.5. Traceability in the Food Industry
7.5.1. Introduction to Traceability
7.5.1.1. Background to the Traceability System
7.5.1.2. Traceability Concept
7.5.1.3. Types of Traceability
7.5.1.4. Advantages of Traceability
7.5.2. Implementation of the Traceability Plan
7.5.2.1. Introduction
7.5.2.2. Previous Stages
7.5.2.3. Traceability Plan
7.5.2.4. Product Identification System
7.5.2.5. System Test Methods

7.5.3. Product Identification Tools
7.5.3.1. Hand Tools
7.5.3.2. Automated Tools
7.5.3.2.1. EAN Bar Code
7.5.3.2.2. RFID/// EPC
7.5.4. Records
7.5.4.1. Registration of Identification of Raw Materials and other Materials
7.5.4.2. Registration of Food Processing
7.5.4.3. Final Product Identification Record
7.5.4.4. Recording of the Results of Checks Performed
7.5.4.5. Record Keeping Period
7.5.5. Incident Management, Product Recall and Reclamation and Customer Complaints
7.6. Storage of Goods and Control of Packaged Products
7.6.1. Hygiene Standards for Dry Storage of Products
7.6.2. Hot Holding: Cooking and Reheating Policies and Hygiene Standards
7.6.3. Validation Records of Storage and Calibration of Thermometers
7.6.4. Food Packaging and Its Application to Food Safety
7.6.4.1. Sanitary Guarantees and Durability of Food under Optimum Conditions according to Packaging Technology
7.6.4.2. Food Packaging and Environmental Contamination
7.7. Analytical and Instrumental Techniques in Process and Product Quality Control
7.7.1. Food Laboratory
7.7.2. Official Control of the Agri-Food Chain
7.7.2.1. PNCPA of the Agri-Food Chain
7.7.2.2. Competent Authorities
7.7.3. Food Analysis Methods
7.7.3.1. Methods of Analysis in Cereals
7.7.3.2. Methods of Analysis of Fertilizers, Residues of Phytosanitary and Veterinary Products
7.7.3.3. Methods of Analysis of Food Products
7.7.3.4. Methods of Analysis of Meat Products
7.7.3.5. Fat Analysis Methods
7.7.3.6. Methods of Analysis of Dairy Products
7.7.3.7. Methods of Analysis of Wines, Juices and Musts
7.7.3.8. Methods of Analysis of Fishery Products
7.7.4. Nutritional Analysis Techniques
7.7.4.1. Protein Determination
7.7.4.2. Determination of Carbohydrates
7.7.4.3. Determination of Fats
7.7.4.4. Ash Determination
7.8. Food Safety Management
7.8.1. Food Safety Principles and Management
7.8.1.1. The Concept of Danger
7.8.1.2. The Concept of Risk
7.8.1.3. Risk Evaluation
7.8.2. Physical Hazards
7.8.2.1. Concepts and Considerations on Physical Hazards in Foods
7.8.2.2. Physical Hazard Control Methods
7.8.3. Chemical Hazards
7.8.3.1. Concepts and Considerations on Chemical Hazards in Foods
7.8.3.2. Chemical Hazards Naturally Occurring in Food
7.8.3.3. Hazards Associated with Chemicals Intentionally Added to Foods
7.8.3.4. Incidentally or Unintentionally Added Chemical Hazards
7.8.3.5. Chemical Hazard Control Methods
7.8.3.6. Allergens in Food
7.8.4. Concepts and Considerations of Biological Hazards in Foods
7.8.4.1. Microbial Hazards
7.8.4.2. Non-Microbial Biological Hazards
7.8.4.3. Biological Hazard Control Methods
7.8.5. Good Manufacturing Practices (GMP)
7.8.5.1. Background
7.8.5.2. Scope
7.8.5.3. GMPs in a Safety Management System

7.9. Validation of New methods and Technology
- 7.9.1. Process and Method Validation
  - 7.9.1.1. Documentary Support
  - 7.9.1.2. Validation of Analytical Techniques
  - 7.9.1.3. Validation Sampling Plan
  - 7.9.1.4. Method Bias and Accuracy
  - 7.9.1.5. Determining Uncertainty
- 7.9.2. Validation Methods
  - 7.9.2.1. Method Validation Stages
  - 7.9.2.2. Types of Validation Processes, Approaches
  - 7.9.2.3. Validation Reports, Summary of Data Obtained
- 7.9.3. Cause Analysis
  - 7.9.3.1. Qualitative Methods: Cause-effect and Tree Root-cause
  - 7.9.3.2. Quantitative Methods Pareto Diagram and Scatter Plots
- 7.9.4. Internal Audits of the Self-Control System
  - 7.9.4.1. Competent Auditors
  - 7.9.4.2. Audit Program and Plan
  - 7.9.4.3. Scope of the Audit
  - 7.9.4.4. Reference Documents

7.10. Maintaining the Cold chain
- 7.10.1. The Cold Line and Its Impact on Food Safety
- 7.10.2. Guidelines in a Catering Service for the Design, Implementation and Maintenance of a HACCP System in the Complete Cold Line
- 7.10.3. Identification of Hazards Associated with the Cold Line

## **Module 8.** Food Quality and Management

8.1. Food Safety and Consumer Protection
- 8.1.1. Definition and Basic Concepts
- 8.1.2. Evolution of Food Quality and Safety
- 8.1.3. Situation in Developing and Developed Countries
- 8.1.4. Key Food Safety Agencies and Authorities: Structures and Roles
- 8.1.5. Food Fraud and Food Hoaxes: The Role of the Media

8.2. Facilities, Premises and Equipment
- 8.2.1. Site Selection: Design and Construction and Materials
- 8.2.2. Maintenance Plan for Premises, Facilities and Equipment
- 8.2.3. Applicable Regulations

8.3. Cleaning and Disinfection Plan (L + D)
- 8.3.1. Dirt Components
- 8.3.2. Detergents and Disinfectants: Composition and Functions
- 8.3.3. Stages of Cleaning and Disinfection
- 8.3.4. Cleaning and Disinfection Program
- 8.3.5. Current Regulations

8.4. Pest Control
- 8.4.1. Pest Control and Disinfestation (Plan P + D)
- 8.4.2. Pests Associated with the Food Chain
- 8.4.3. Preventive Measures for Pest Control
  - 8.4.3.1. Traps and Snares for Mammals and Ground Insects
  - 8.4.3.2. Traps and Snares for Flying Insects

8.5. Traceability and Good Handling Practices Plan (GHP)
- 8.5.1. Structure of a Traceability Plan
- 8.5.2. Current Regulations Associated with Traceability
- 8.5.3. GHP Associated with Food Processing
  - 8.5.3.1. Food Handlers
  - 8.5.3.2. Requirements to be Fulfilled
  - 8.5.3.3. Hygiene Training Plans

8.6. Elements in Food Safety Management
- 8.6.1. Water as an Essential Element in the Food Chain
- 8.6.2. Biological and Chemical Agents Associated with Water
- 8.6.3. Quantifiable Elements of Quality, Safety and Use of Water
- 8.6.4. Approval of Suppliers
  - 8.6.4.1. Supplier Control Plan
  - 8.6.4.2. Associated Current Regulations
- 8.6.5. Food Labeling
  - 8.6.5.1.I Consumer Information and Allergen Labeling
  - 8.6.5.2. Labeling of Genetically Modified Organisms

8.7. Food Crisis and Associated Policies
- 8.7.1. Triggering Factors of a Food Crisis
- 8.7.2. Scope, Management and Response to the Food Security Crisis
- 8.7.3. Alert Communication Systems
- 8.7.4. Policies and Strategies for Improving Food Quality and Safety

8.8. HACCP Plan Design
- 8.8.1. General Guidelines to be Followed for its Implementation: Principles on which it is Based and Pre-requisite Program
- 8.8.2. Management Commitment
- 8.8.3. Configuration of HACCP
- 8.8.4. Description of the Product and Identification of Its Intended Use
- 8.8.5. Flow Diagrams

8.9. Development the HACCP Plan
- 8.9.1. Characterization of Critical Control Points (CCP)
- 8.9.2. The Seven Basic Principles of the HACCP Plan
  - 8.9.2.1. Hazard Identification and Analysis
  - 8.9.2.2. Establishment of Control Measures for Identified Hazards
  - 8.9.2.3. Determination of Critical Control Points (CCP)
  - 8.9.2.4. Characterization of Critical Control Points
  - 8.9.2.5. Establishment of Critical Limits
  - 8.9.2.6. Determination of Corrective Actions
  - 8.9.2.7. HACCP System Checks

8.10. ISO 22000
- 8.10.1. ISO 22000 Principles
- 8.10.2. Purpose and Field of Application
- 8.10.3. Market Situation and Position in Relation to Other Applicable Standards in the Food Chain
- 8.10.4. Application Requirements
- 8.10.5. Food Safety Management Policy

## **Module 9.** Food Safety Assessment

9.1. Evaluation of Food Safety
- 9.1.1. Definition of Terms. Main Related Concepts
- 9.1.2. Historical Background of Food Safety
- 9.1.3. Agencies in Charge of Managing Food Safety

9.2. HACCP Plan
- 9.2.1. Requirements prior to Implementation
- 9.2.2. HACCP System Components
  - 9.2.2.1. Hazard Analysis
  - 9.2.2.2. Identification of Critical Points
  - 9.2.2.3. Specification of Control Criteria. Monitoring
  - 9.2.2.4. Corrective Actions
  - 9.2.2.5. Plan Verification
  - 9.2.2.6. Data Logging

9.3. Hygiene of Meat and Meat Products
- 9.3.1. Fresh Meat Products
- 9.3.2. Raw Cured Meat Products
- 9.3.3. Heat-treated Meat Products
- 9.3.4. Application of HACCP Systems

9.4. Hygiene of Fish and Fish Products
- 9.4.1. Fish, Mollusks and Crustaceans
- 9.4.2. Processed Fish Products
- 9.4.3. Application of HACCP Systems

9.5. Hygienic Characteristics of Milk and Dairy Derivatives
- 9.5.1. Hygienic Characteristics of Raw and Heat-treated Milk
- 9.5.2. Hygienic Characteristics of Concentrated and Dehydrated Milk
- 9.5.3. Hygienic Characteristics of Dairy Products
- 9.5.4. Application of HACCP Systems

9.6. Hygienic Characteristics of Other Products of Animal Origin
- 9.6.1. Eggs and Egg Products
- 9.6.2. Honey
- 9.6.3. Fats and Oils
- 9.6.4. Application of HACCP Systems

9.7. Hygienic Characteristics of Fruit and Vegetables
- 9.7.1. Fresh Fruits and Vegetables, Fruit and Vegetable Derivatives
- 9.7.2. Dried Fruit
- 9.7.3. Vegetable Oils
- 9.7.4. Application of HACCP Systems

9.8. Hygienic Characteristics of Legumes and Cereals
- 9.8.1. Legumes and Cereals
- 9.8.2. Products Derived from Pulses: Flours, Bread, Pastas
- 9.8.3. Application of HACCP Systems

9.9. Hygienic Characteristics of Water and Beverages
- 9.9.1. Potable Water and Soft Drinks
- 9.9.2. Stimulating Drinks
- 9.9.3. Alcoholic Beverages
- 9.9.4. Application of HACCP Systems

9.10. Hygienic Characteristics of Other Food Products
- 9.10.1. Nougats
- 9.10.2. Prepared Dishes
- 9.10.3. Food Intended for the Child Population
- 9.10.4. Application of HACCP Systems

## **Module 10.** Marketing and Consumer Behavior

10.1. Concept and Function of Marketing in the Company
- 10.1.1. Concept and Nature of Marketing
- 10.1.2. The Marketing Process
- 10.1.3. Energy Markets
- 10.1.4. Evolution of Business Approaches to the Marketplace
- 10.1.5. Evolution and Current Trends in Marketing

10.2. Consumer Behavior in Relation to Foods
- 10.2.1. Nature and Range of the Study of Consumer Behavior
- 10.2.2. Factors Influencing Consumer Behavior
- 10.2.3. The Process in Purchasing Decisions
- 10.2.4. The Organizational Purchasing Process

10.3. Food Market Research
- 10.3.1. Concept, Objectives and Types of Marketing Research
- 10.3.2. Sources of Marketing Information
- 10.3.3. The Commercial Research Process
- 10.3.4. Commercial Research Tools
- 10.3.5. Markets and Customers: Segmentation

10.4. Marketing Decisions Related to Food as a Commercial Product
- 10.4.1. Food as Products, Characteristics, and Classification
- 10.4.2. Decisions on Food Products
- 10.4.3. Brand Decisions

10.5. Development and Commercialization of Novel Foods
- 10.5.1. New Product Development Strategy
- 10.5.2. New Product Development Stages
- 10.5.3. Management of a New Product
- 10.5.4. Marketing Policies throughout the Product Life Cycle

10.6. Administration and Pricing Policies
- 10.6.1. Pricing, Approach to the Concept
- 10.6.2. Pricing Policies
- 10.6.3. New Product Pricing Strategies
- 10.6.4. Pricing a Mix/portfolio of Products
- 10.6.5. Price Adjustment Strategies

10.7. Communication with the Market
- 10.7.1. The Role of Marketing Communications
- 10.7.2. Communication Tools
- 10.7.3. Development of Effective Communication
- 10.7.4. Factors in Establishing the Communication Mix

10.8. Food Distribution
- 10.8.1. Introduction
- 10.8.2. Channel Design Decisions
- 10.8.3. Channel Management Decisions
- 10.8.4. Integration and Channel Systems
- 10.8.5. Changes in Channel Organization

10.9. Consumer Decision Process
- 10.9.1. Stimulus and Market Characteristics and Their Relationship to the Consumer Decision
  - 10.9.1.1 Extensive, Limited and Routine Purchase Decision
  - 10.9.1.2. High-involvement and Low-involvement Purchase Decisions
  - 10.9.1.3. Buyers's Typology
- 10.9.2. Recognition of the Problem: Concept and Influencing Factors
- 10.9.3. Information Search: Concept, Types, Dimensions and Determinants of the Search Process
- 10.9.4. The Evaluation of Information: Evaluation Criteria and Evaluation Strategies or Decision Rules
- 10.9.5. General Aspects of Branding. Choice
  - 10.9.5.1 The Choice of Establishment
  - 10.9.5.2. Post-Purchase Processes

10.10. The Social Dimension in the Consumer Buying Process
- 10.10.1. Culture and Its Influence on Consumers: Dimensions, Concept and Characteristic Aspects of Culture
- 10.10.2. The Value of Consumption in Western Cultures
  - 10.10.2.1. Social Groups and Consumer Behavior: Concept, Characteristics and Measurement Procedures
  - 10.10.2.2. Lifestyles
- 10.10.3. Groups: Concept, Characteristics and Types of Groups
  - 10.10.3.1. The Influence of Families on Shopping Decision
  - 10.10.3.2. Types of Family Purchasing Decisions and Factors Influencing the Family Decision Process
  - 10.10.3.3. Family Life Cycle

## **Module 11.** Leadership, Ethics and Social Responsibility in Companies

11.1. Globalization and Governance
- 11.1.1. Governance and Corporate Governance
- 11.1.2. The Fundamentals of Corporate Governance in Companies
- 11.1.3. The Role of the Board of Directors in the Corporate Governance Framework

11.2. Leadership
- 11.2.1. Leadership. A Conceptual Approach
- 11.2.2. Leadership in Companies
- 11.2.3. The Importance of Leaders in Business Management

11.3. Cross-Cultural Management
- 11.3.1. Concept of Cross-Cultural Management
- 11.3.2. Contributions to the Knowledge of National Cultures
- 11.3.3. Diversity Management

11.4. Management and Leadership Development
- 11.4.1. Concept of Management Development
- 11.4.2. Concept of Leadership
- 11.4.3. Leadership Theories
- 11.4.4. Leadership Styles
- 11.4.5. Intelligence in Leadership
- 11.4.6. The Challenges of Today's Leader

11.5. Business Ethics
- 11.5.1. Ethics and Morality
- 11.5.2. Business Ethics
- 11.5.3. Leadership and Ethics in Companies

11.6. Sustainability
- 11.6.1. Sustainability and Sustainable Development
- 11.6.2. The 2030 Agenda
- 11.6.3. Sustainable Companies

11.7. Corporate Social Responsibility
- 11.7.1. International Dimensions of Corporate Social Responsibility
- 11.7.2. Implementing Corporate Social Responsibility
- 11.7.3. The Impact and Measurement of Corporate Social Responsibility

11.8. Responsible Management Systems and Tools
- 11.8.1. CSR: Corporate Social Responsibility
- 11.8.2. Essential Aspects for Implementing a Responsible Management Strategy
- 11.8.3. Steps for the Implementation of a Corporate Social Responsibility Management System
- 11.8.4. Tools and Standards of CSR

11.9. Multinationals and Human Rights
- 11.9.1. Globalization, Multinational Corporations and Human Rights
- 11.9.2. Multinational Corporations and International Law
- 11.9.3. Legal Instruments for Multinationals in the Field of Human Rights

11.10. Legal Environment and Corporate Governance
- 11.10.1. International Rules on Importation and Exportation
- 11.10.2. Intellectual and Industrial Property
- 11.10.3. International Labor Law

## **Module 12.** People and Talent Management

12.1. Strategic People Management
- 12.1.1. Strategic Human Resources Management
- 12.1.2. Strategic People Management

12.2. Human Resources Management by Competencies
- 12.2.1. Analysis of the Potential
- 12.2.2. Remuneration Policy
- 12.2.3. Career/Succession Planning

12.3. Performance Evaluation and Performance Management
- 12.3.1. Performance Management
- 12.3.2. Performance Management: Objectives and Process

12.4. Innovation in Talent and People Management
- 12.4. 1 Strategic Talent Management Models
- 12.4.2. Talent Identification, Training and Development
- 12.4.3. Loyalty and Retention
- 12.4.4. Proactivity and Innovation

12.5. Motivation
- 12.5.1. The Nature of Motivation
- 12.5.2. Expectations Theory
- 12.5.3. Needs Theory
- 12.5.4. Motivation and Financial Compensation

12.6. Developing High Performance Teams
- 12.6.1. High-Performance Teams: Self-Managing Teams
- 12.6.2. Methodologies for Managing High Performance Self-Managed Teams

12.7. Change Management
- 12.7.1. Change Management
- 12.7.2. Types of Change Management Processes
- 12.7.3. Stages or Phases in Change Management

12.8. Negotiation and Conflict Management
- 12.8. 1 Negotiation
- 12.8.2 Conflict Management
- 12.8.3 Crisis Management

12.9. Executive Communication
- 12.9.1. Internal and External Communication in the Business Environment
- 12.9.2. Communication Departments
- 12.9.3. The Head of Communication of the Company. The Profile of the Dircom

12.10. Productivity, Attraction, Retention and Activation of Talent
- 12.10.1. Productivity
- 12.10.2. Talent Attraction and Retention Levers

## **Module 13.** Economic and Financial Management

13.1. Economic Environment
- 13.1.1. Macroeconomic Environment and the National Financial System
- 13.1.2. Financial Institutions
- 13.1.3. Financial Markets
- 13.1.4. Financial Assets
- 13.1.5. Other Financial Sector Entities

13.2. Executive Accounting
- 13.2.1. Basic Concepts
- 13.2.2. The Company's Assets
- 13.2.3. The Company's Liabilities
- 13.2.4. The Company's Net Worth
- 13.2.5. The Income Statement

13.3. Information Systems and Business Intelligence
- 13.3.1. Fundamentals and Classification
- 13.3.2. Cost Allocation Phases and Methods
- 13.3.3. Choice of Cost Center and Impact

13.4. Budget and Management Control
- 13.4.1. The Budgetary Model
- 13.4.2. The Capital Budget
- 13.4.3. The Operating Budget
- 13.4.5. The Cash Budget
- 13.4.6. Budget Monitoring

13.5. Financial Management
- 13.5.1. The Company's Financial Decisions
- 13.5.2. The Financial Department
- 13.5.3. Cash Surpluses
- 13.5.4. Risks Associated with Financial Management
- 13.5.5. Risk Management of the Financial Management

13.6. Financial Planning
- 13.6.1. Definition of Financial Planning
- 13.6.2. Actions to Be Taken in Financial Planning
- 13.6.3. Creation and Establishment of the Business Strategy
- 13.6.4. The Cash Flow Chart
- 13.6.5. The Working Capital Chart

13.7. Corporate Financial Strategy
- 13.7.1. Corporate Strategy and Sources of Financing
- 13.7.2. Corporate Financing Financial Products

13.8. Strategic Financing
- 13.8.1. Self-financing
- 13.8.2. Increase in Shareholder's Equity
- 13.8.3. Hybrid Resources
- 13.8.4. Financing through Intermediaries

13.9. Financial Analysis and Planning
- 13.9.1. Analysis of the Balance Sheet
- 13.9.2. Analysis of the Income Statement
- 13.9.3. Profitability Analysis

13.10. Analyzing and Solving Cases/Problems
- 13.10.1. Financial Information on Industria de Diseño y Textil, S.A. (INDITEX)

## **Module 14.** Commercial Management and Strategic Marketing

14.1. Strategic Marketing Management
- 14.1.1. The Concept of Strategic Marketing
- 14.1.2. Concept of Strategic Marketing Planning
- 14.1.3. Stages in the Process of Strategic Marketing Planning

14.2. Digital Marketing and e-Commerce
- 14.2.1. Objectives of Digital Marketing and e-Commerce
- 14.2.2. Digital Marketing and the Media It Uses
- 14.2.3. E-Commerce. General Context
- 14.2.4. Categories of e-Commerce
- 14.2.5. Advantages and Disadvantages of e-Commerce Compared to Traditional Commerce

14.3. Digital Marketing to Reinforce a Brand
- 14.3.1. Online Strategies to Improve Brand Reputation
- 14.3.2. Branded Content and Storytelling

14.4. Digital Marketing to Attract and Retain Customers
- 14.4.1. Loyalty and Engagement Strategies Using the Internet
- 14.4.2. Visitor Relationship Management
- 14.4.3. Hypersegmentation

14.5. Digital Campaign Management
- 14.5.1. What Is a Digital Advertising Campaign?
- 14.5.2. Steps to Launch an Online Marketing Campaign
- 14.5.3. Mistakes in Digital Advertising Campaigns

14.6. Sales Strategy
- 14.6.1. Sales Strategy
- 14.6.2. Sales Methods

14.7. Corporate Communication
- 14.7.1. Concept
- 14.7.2. The Importance of Communication in the Organization
- 14.7.3. Type of Communication in the Organization
- 14.7.4. Functions of Communication in the Organization
- 14.7.5. Elements of Communication
- 14.7.6. Problems of Communication
- 14.7.7. Communication Scenarios

14.8. Digital Communication and Reputation
- 14.8.1. Online Reputation
- 14.8.2. How to Measure Digital Reputation?
- 14.8.3. Online Reputation Tools
- 14.8.4. Online Reputation Report
- 14.8.5. Online Branding

## **Module 15.** Executive Management

15.1. General Management
- 15.1.1. The Concept of General Management
- 15.1.2. The Role of the CEO
- 15.1.3. The CEO and their Responsibilities
- 15.1.4. Transforming the Work of Management

15.2. Manager Functions: Organizational Culture and Approaches
- 15.2.1. Manager Functions: Organizational Culture and Approaches

15.3. Operations Management
- 15.3.1. The Importance of Management
- 15.3.2. Value Chain
- 15.3.3. Quality Management

15.4. Public Speaking and Spokesperson Education
- 15.4.1. Interpersonal Communication
- 15.4.2. Communication Skills and influence
- 15.4.3. Communication Barriers

15.5. Personal and Organizational Communication Tools
- 15.5.1. Interpersonal Communication
- 15.5.2. Interpersonal Communication Tools
- 15.5.3. Communication in the Organization
- 15.5.4. Tools in the Organization

15.6. Communication in Crisis Situations
- 15.6.1. Crisis
- 15.6.2. Phases of the Crisis
- 15.6.3. Messages: Contents and Moments

15.7. Preparation of a Crisis Plan
- 15.7.1. Analysis of Possible Problems
- 15.7.2. Planning
- 15.7.3. Adequacy of Personnel

15.8. Emotional Intelligence
- 15.8.1. Emotional Intelligence and Communication
- 15.8.2. Assertiveness, Empathy, and Active Listening
- 15.8.3. Self- Esteem and Emotional Communication

15.9. Personal Branding
- 15.9.1. Strategies for Personal Brand Development
- 15.9.2. Personal Branding Laws
- 15.9.3. Tools for Creating Personal Brands

15.10. Leadership and Team Management
- 15.10.1. Leadership and Leadership Styles
- 15.10.2. Leadership Skills and Challenges
- 15.10.3. Managing Change Processes
- 15.10.4. Managing Multicultural Teams

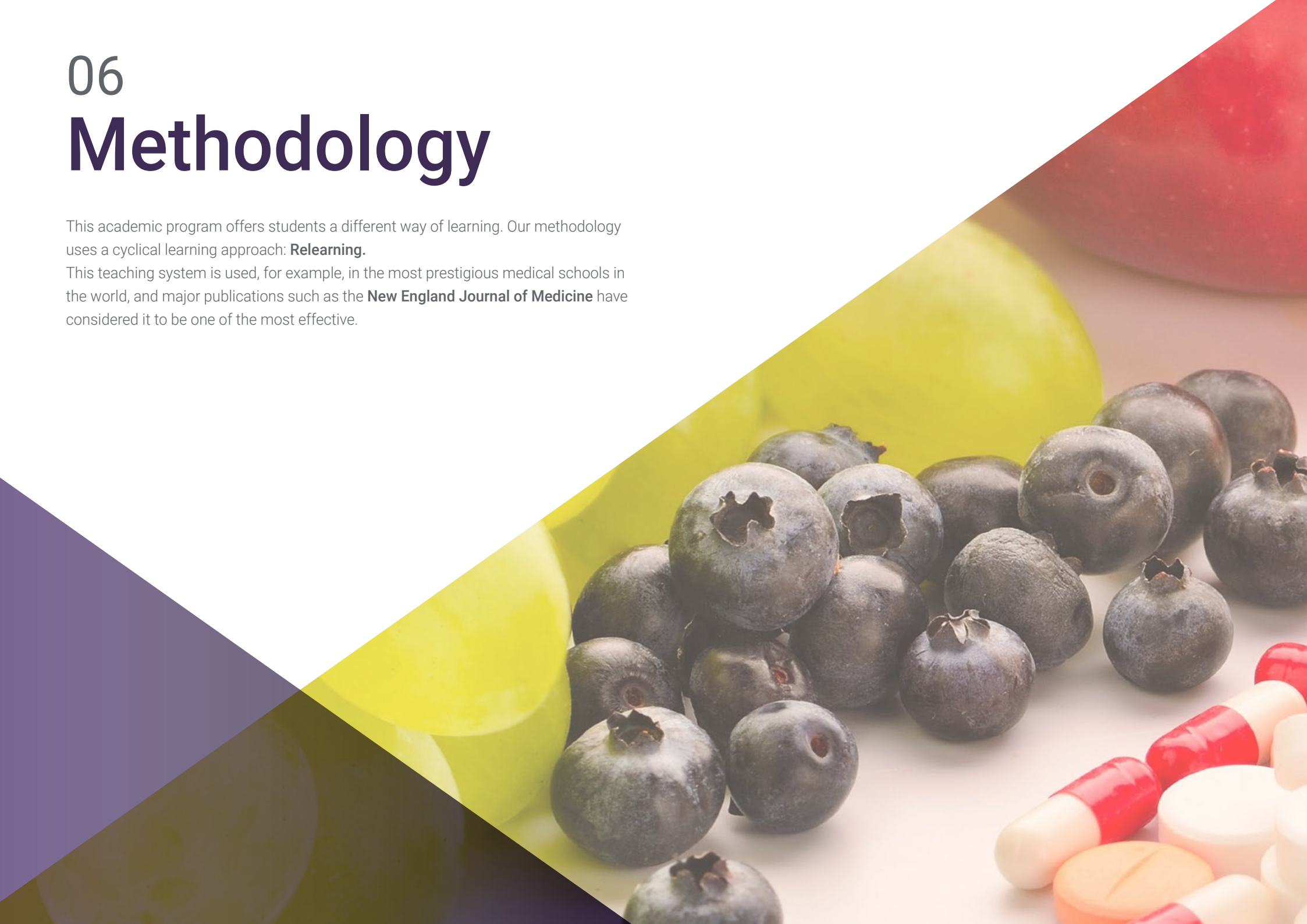
*A 100% online program that will show you what techniques to use to understand household purchasing decisions"*

06

# Methodology

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

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

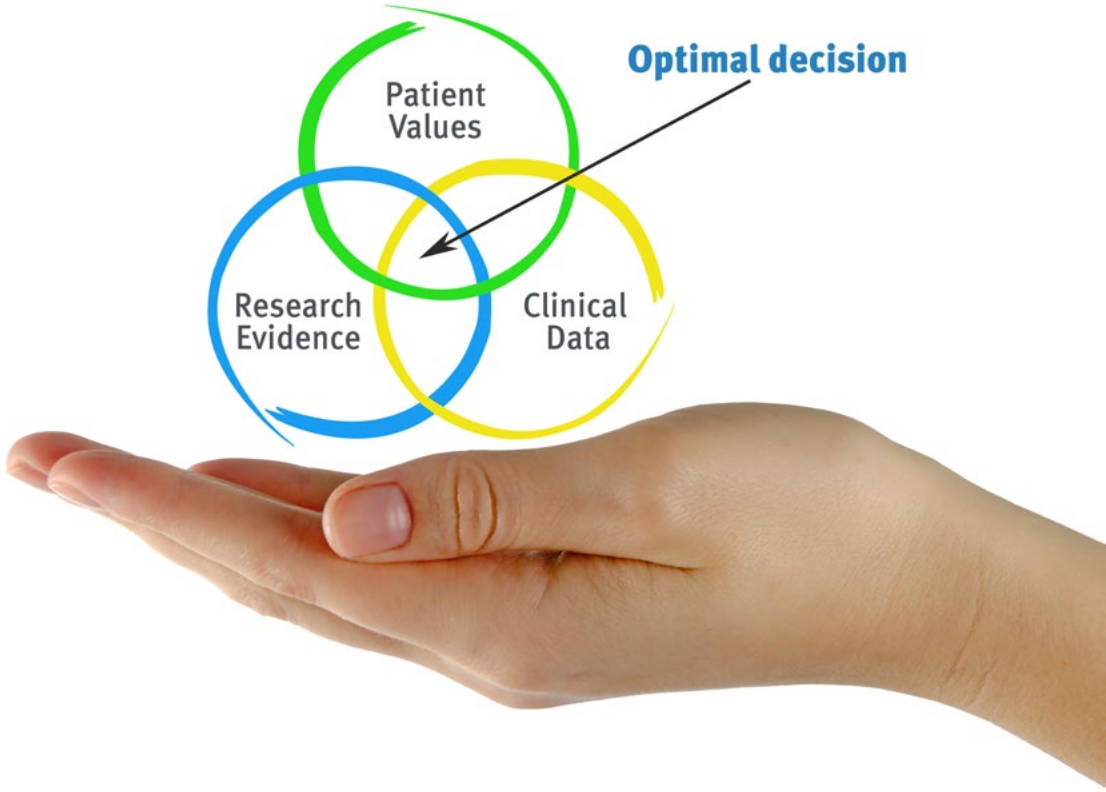


*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH, nutritionists can experience a way of learning that is shaking the foundations of traditional universities around the world.*




According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions of professional nutritional practice.

*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"*

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

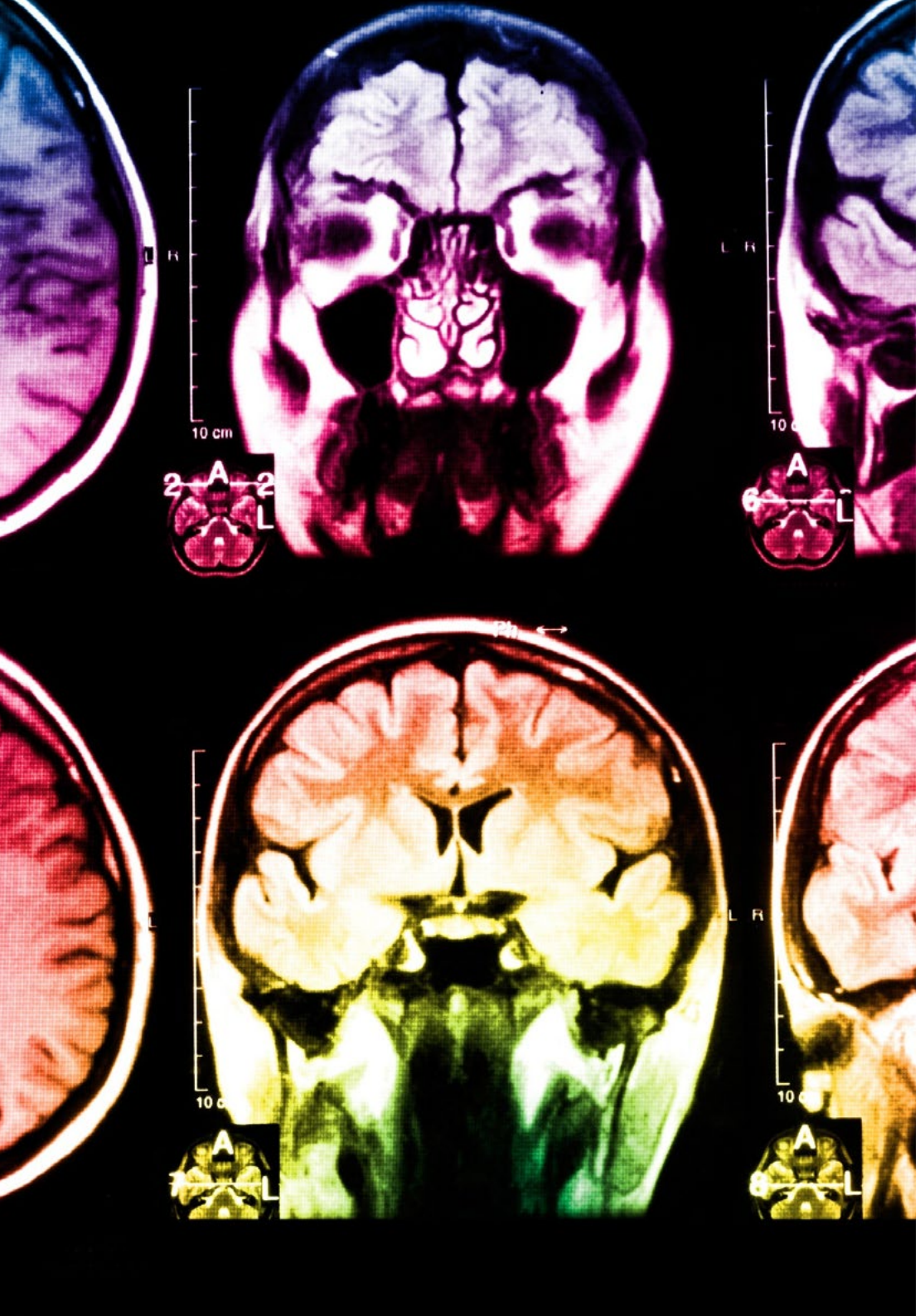
1. Nutritionists who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity through exercises to evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the nutritionist to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

## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

*The nutritionist will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 45,000 nutritionists have been trained with unprecedented success in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

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

### Study Material

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

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

### Nutrition Techniques and Procedures on Video

TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current nutritional counselling techniques and procedures. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.

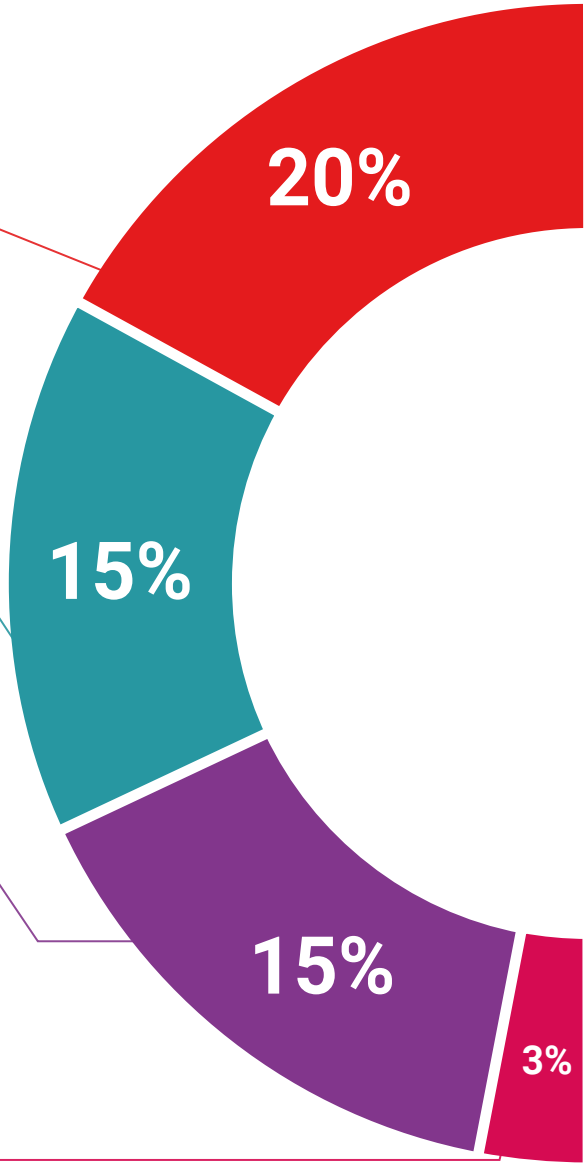
### Interactive Summaries

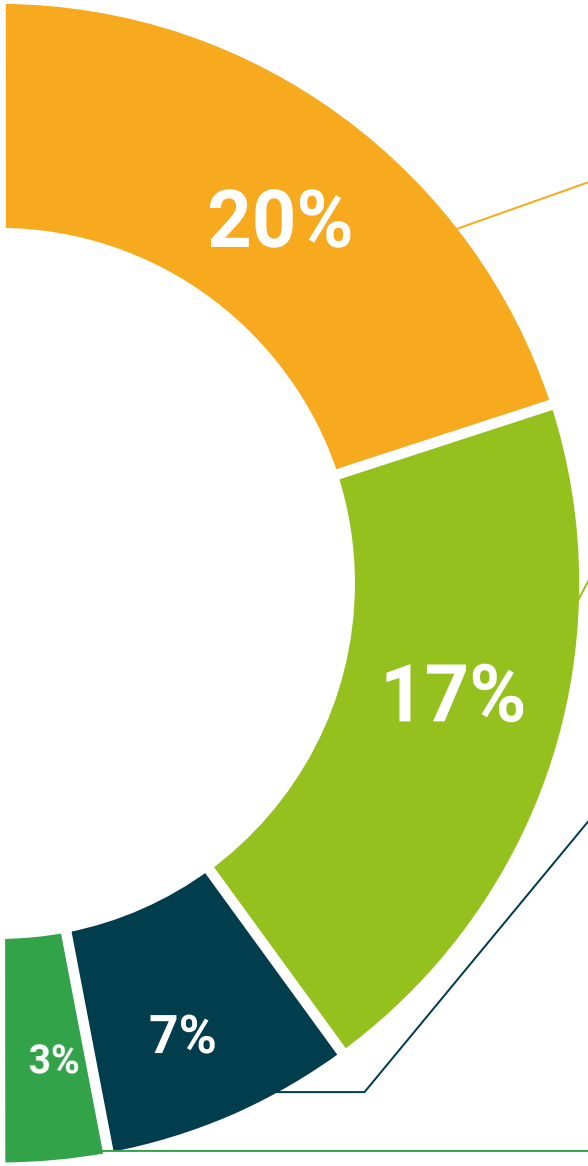
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

### Additional Reading

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






### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

### Testing & Retesting

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

### Classes

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

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

### Quick Action Guides

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

07

# Certificate

The MBA in Food Industry Management guarantees, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree Certificate issued by TECH Global University.

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

This private qualification will allow you to obtain a **MBA in Food Industry Management** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ***(official bulletin)***. Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in MBA in Food Industry Management**

Modality: **online**

Duration: **12 months**

Accreditation: **90 ECTS**

tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

**Professional Master's Degree in MBA in Food Industry Management**

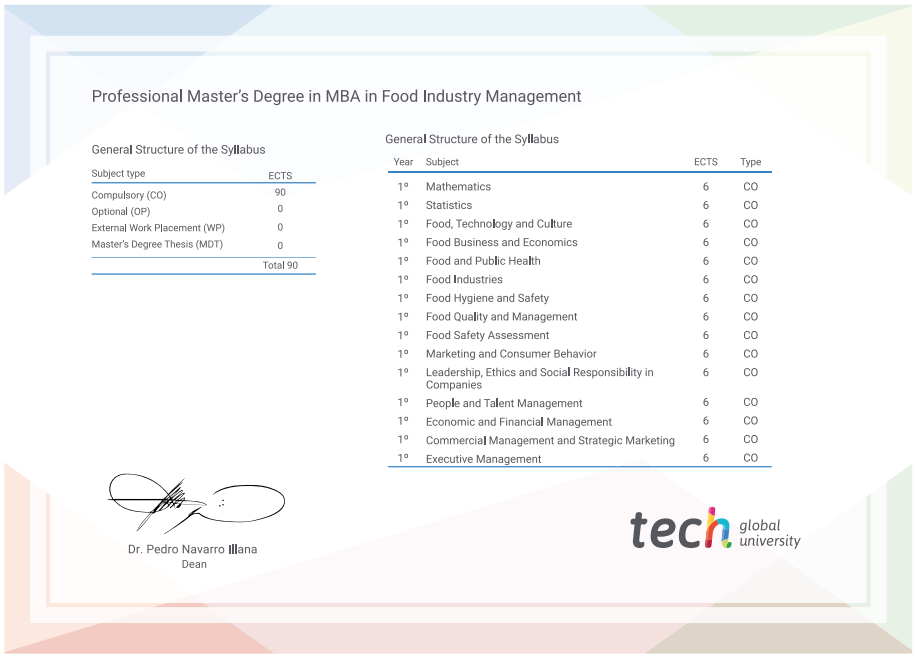
This is a private qualification of 2,700 hours of duration equivalent to 90 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates



Professional Master's Degree in MBA in Food Industry Management

General Structure of the Syllabus

| Subject type | ECTS |
|---|---|
| Compulsory (CO) | 90 |
| Optional (OP) | 0 |
| External Work Placement (WP) | 0 |
| Master's Degree Thesis (MDT) | 0 |
| | Total 90 |

General Structure of the Syllabus

| Year | Subject | ECTS | Type |
|---|---|---|---|
| 1º | Mathematics | 6 | CO |
| 1º | Statistics | 6 | CO |
| 1º | Food, Technology and Culture | 6 | CO |
| 1º | Food Business and Economics | 6 | CO |
| 1º | Food and Public Health | 6 | CO |
| 1º | Food Industries | 6 | CO |
| 1º | Food Hygiene and Safety | 6 | CO |
| 1º | Food Quality and Management | 6 | CO |
| 1º | Food Safety Assessment | 6 | CO |
| 1º | Marketing and Consumer Behavior | 6 | CO |
| 1º | Leadership, Ethics and Social Responsibility in Companies | 6 | CO |
| 1º | People and Talent Management | 6 | CO |
| 1º | Economic and Financial Management | 6 | CO |
| 1º | Commercial Management and Strategic Marketing | 6 | CO |
| 1º | Executive Management | 6 | CO |

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

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# Professional Master's Degree

## MBA in Food Industry Management

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Global University**
- Credits: **90 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

# Professional Master's Degree

## MBA in Food Industry Management

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