UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Economics of Biotechnology Companies

2627-2-E0202Q076

Aims

The course will focus on the main topics related to business economics.

Knowledge and understanding
This course provides students with basic knowledge and the ability to understand the basic principles and theories of business economics, in particular related to business systems, the different degrees of economic combinations and value-generating activities. In particular, the course will focus on the analysis of biotechnology companies, startup innovation technology, spin-offs and Innovative SMEs*

Ability to apply knowledge and understanding
Students, thanks to a course that strongly detaches itself from the other disciplines studied, will look at the organizational and management world of the company. Through the study of the main paradigms and interpretative systems of the business reality, they will be able to understand and develop more, and with a critical eye, the business ideas that they could create in the future through programming and control activities.

Autonomy of judgment
Students will have the ability to analyze the main problems related to the economic variables of biotechnology companies, i.e. business strategy, organization, management.

Communication skills
Students will acquire an adequate vocabulary to communicate the skills acquired, the underlying logic and the application methods to specialist and non-specialist interlocutors.

Learning ability
At the end of the course, students will have the information to be able to deepen what they learned during the course through their own research of sources or analysis of the application of technologies to the biotechnology context in which they will operate.

Contents

The course will focus on the analysis of the main issues related to business economics, namely business management, planning and control, organization, in particular of biotechnology companies.

Detailed program

Business economics and its relationship with law, economics, statistical and mathematical sciences, computer science, medicine and psychology, and sciences.
The environments in which companies operate.
The biotech sectors and the types and areas (Health, Agriculture and Livestock, Industry and Environment, GPTA)
The company and its functioning (families, production companies, supply companies and non-profit organizations).
The difference between companies and businesses from a legal and economic perspective
Companies (individual businesses, partnerships and corporations, mutual societies and non-profit organizations) and governing bodies
Governance models (Public company, consociative and owner/family) and business aggregates. Extraordinary operations.
Economic combinations (technical, economic and monetary cycles), the different classifications of management operations
Stakeholder analysis and the importance of Corporate Social Responsibility in the scientific field
Analysis of production processes and areas divided by function
Produced processes and layouts, and supply chain management
The market and matrices, the importance of technology in relation to innovation
Notes on accounting records and double-entry bookkeeping, the financial statement and elements of data analysis, and economic convenience
The programming and control system (management control and planning, budget, break-even analysis and cost analysis)
The organizational structure and human resources management (actors, corporate culture, leadership, structures, remuneration policies)
Spinoffs, start-ups innovation technology and innovative SMEs.
Patents and patents for new plant varieties

Prerequisites

Background: None

Specific prerequisites: none

Teaching form

16 two-hour lessons delivered in person; interactive exercises with students may be conducted during the sessions.
Teaching language: italian.
Lessons may be recorded and uploaded to the course's e-learning page in the appropriate section until the end of the academic year

Textbook and teaching resource

Course slides uploaded by the teacher on the e-learning page

Recommended textbook (Italian language):

Economia Aziendale - Modelli, misure, casi. Mc Graw Hill Ed. 2013 Boesso, Bozzolan, Parbonetti

Semester

First semester

Assessment method

Written test:
Closed-ended test (10 True and False, 13 Multiple Choice) worth one point each
2 Open questions (total 5 points)
2 Exercises (total 2 points)
for a maximum duration of 1h - 1h15, and will be held in the computer labs depending on their availability
The grade is expressed in thirtieths.
The aim of the test is to evaluate the skills acquired during the course of study, stimulating reasoning

Office hours

During the first semester before the start or at the end of the lesson
Otherwise upon request for an appointment for a face-to-face or remote reception according to the urgency and the problem of the student, from Monday to Friday 9.00 - 18.00

Sustainable Development Goals

INDUSTRY, INNOVATION AND INFRASTRUCTURE