



IDENTIFYING DATA

Introduction to Bio-Industries Management and Business Development in Life Sciences

Subject	Introduction to Bio-Industries Management and Business Development in Life Sciences			
Code	V02M123V01114			
Study programme	(*)Máster Universitario en Ciencias Biológicas: Biología Molecular, Computacional e Ambiental e Bio-Industrias			
Descriptors	ECTS Credits	Type	Year	Quadmester
	6	Optional	1st	1st
Language	English			
Department				
Coordinator	Fernández Arias, M ^a Jesús			
Lecturers	Fernández Arias, M ^a Jesús			
E-mail	jarias@uvigo.es			
Web				
General description	<p>The course deals with the development and management of biotechnology businesses. The general goal is that the student achieves the necessary skills to gather and analyze relevant information in order to take strategic decisions, harmonizing organizational resource capabilities with the threats and opportunities of the environment.</p> <p>This program has a more specialized focus on the biotechnology area, addressing key issues which will specifically impact on the success of many possible chances of business related with healthcare, food and the environment.</p>			

Competencies

Type A	Code	Competences Specific
	A1	(*)To know the scientific method and the correct use of the scientific terminology as well as to acknowledge the contribution that scientific research provides to the overall knowledge and professional practice.
	A2	(*)Ability to describe and to analyse biological diversity, the mechanisms determining the interactions with the biotic and abiotic environment and being able to select those which might have technical applications.
	A3	(*)Ability to manage and/or to develop basic tools for validating and analysing data by means of statistics and bioinformatics.
	A4	(*)To know the ethical and legal aspects governing the collection and the handling of biological samples, organisms and habitats.
	A5	(*)Ability to design, evaluate and implement models of biological structures, systems and processes.
	A6	(*)To learn the sampling techniques and the instrumental methodologies, in the field and laboratory, for their application in the Biological Sciences
	A7	(*)To have an integrated view of the R&D processes and their possible transfer to the industrial sector. Planning and supervising facilities together with managing their human and economic resources.
	A8	(*)Ability to classify, evaluate, conserve, restore and manage natural and productive systems. Developing and implementing land management and sustainability plans.

A9	(*)To understand and know how to apply quality control systems and safety protocols in any biological laboratory of the public or private sector.
A10	(*)To acquire the professional ability to teach and spread Biology and to offer expertise advice for elaborating scientific, technical and socioeconomic biology reports. Address environmental consulting.
A11	(*)To perform an individual Master Project (critical and in-depth study) under the supervision of a tutor in a research or working environment demonstrating that skills have been acquired.

Type B Code Competences Transversal

B1	(*)Dissemination of results and conclusions of the biological studies, in oral and written English, through complex presentations that address ideas related with R&D in Biology.
B2	(*)Managing computational, laboratory, field and industrial techniques in order to obtain, process and apply the acquired information.
B3	(*)Disseminating and broadcasting ideas in contexts both academic and non-specialised.
B4	(*)Reflecting on social and ethical responsibilities.

Learning aims

Subject competences	Typology	Competences
To know basic tools for strategic analysis and design, both competitive and corporative	know	A1 A10 B1 B2 B3 B4
To acquire the competence of identifying what dimensions define business in the biotechnology industry	know Know How	A1 A7 A8 A10 A11 B1 B2 B3 B4
To plot the most suitable competitive strategy for every single unit business	know Know How Know be	A1 A7 A8 A10 A11 B1 B2 B3 B4

Contents

Topic	
1. Strategic analysis: main concepts and some basic tools.	1.1. Analyzing the external environment of the firm. 1.2. Value chain in Bio industries and key factors for a Bio enterprise. 1.3. Assessing the internal environment of the firm 1.3.1. Recognizing key resources of the firm 1.3.2. Developing new capabilities.
2. Strategic management: creating a sustainable competitive advantage.	2.1. Strategic design of corporate, business and functional strategies. 2.2. Strategy implementation and control: making strategy work. 2.3. Organization, leadership and change management.

Planning

	Personalized attention	Assessment	Ordinary class hours A	Face-to-face hours outside the classroom Guided academic environment B	Student's work factor C	Outside the classroom hours D	Total hours (A+B+D) E
Master Session	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10	0	0	30	40
Group tutoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	0	0	10	14
Presentations / exhibitions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	0	0	20	23
Case studies / analysis of situations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4	0	0	20	24
Projects	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4	0	0	30	34
Short answer tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	0	0	4	5
Case studies / analysis of situations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	0	0	8	10
Total hours E:							150
Work load in UVIGO ECTS credits:							6

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Master Session	Presentation by the teacher of the contents on the subject under study, theoretical and guidelines for a job, exercise or project to be developed by the student.
Group tutoring	Interviews held by teacher of the subject with the students for advice, to guide the development of the different activities of the course and to foster the learning process in order to achieve the planned outcomes.
Presentations / exhibitions	Exhibition by the students to the teacher and a group of students of the results of a case study, a project ... Some presentations will be done individually and other presentations will be in groups.
Case studies / analysis of situations	Analysis of actual strategic decisions of well-known companies in order to understand keys of successful companies.
Projects	Performing activities that allow the cooperation of various subjects and students face, working together, to open problems. Allow coaching, among others, the cooperative learning skills, leadership, organizational, communication and strengthening relationships.

Personalized attention

	Description
Master Session	Interviews held by teacher of the subject with the students for advice, to guide the development of the different activities of the course and to foster the learning process in order to achieve the planned outcomes.
Group tutoring	Interviews held by teacher of the subject with the students for advice, to guide the development of the different activities of the course and to foster the learning process in order to achieve the planned outcomes.

Assessment

	Description	Qualification
Presentations / exhibitions	Students will be asked to effectively communicate information in a genre that professional business men are expected to master.	20
Case studies / analysis of situations	Students are presented with problem-solving tasks through which they must demonstrate their ability to apply theoretical knowledge to practical situations. They are expected to evaluate the situations under consideration and utilise their knowledge in identifying areas of concern and, where possible, suggest solutions.	10
Projects	Projects provides students with the opportunity to tackle real world situations that by their nature have no easy solution, or have no solution at the present time. The assesment will be focus on students learning of managing their time, interpreting data sets, resolving value conflicts between group members and preparing and communicating the results of their project.	40
Short answer tests	Short-answer and open-ended questions that require students to create an answer. They will be used to assess the basic knowledge and understanding of the main concepts addressed in the subject before more in-depth assessment took place.	15

Case studies / analysis of situations	Students are presented with problem-solving tasks through which they must demonstrate their ability to apply theoretical knowledge to practical situations. They are expected to evaluate the situations under consideration and utilise their knowledge in identifying areas of concern and, where possible, suggest solutions.	15
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Other comments and second call

Sources of information

Grant, R.M., Contemporary strategy analysis: concepts, techniques, applications, Blackwell Publishers, 2001
 Grant, R. M., Cases to accompany Contemporary strategy analysis, Blackwell Publishers, 2005

Recommendations

Subjects that continue the syllabus

Bio-Industries Marketing and Commercial Management/V02M123V01115

Subjects that it is recommended to have taken before

Entrepreneurship and Professional Career Development/V02M123V01216
 Human Resources Management and Leadership/V02M123V01213
