

## **8045 – MSc in Bioinformatics for Health Sciences**

### **31029 – PRO. Design and Management of Research Projects**

#### **Syllabus Information**

**Academic Course:** 2018/19

**Academic Center:** 804 - Official Postgraduate Programme in Biomedicine

**Study:** 8045 – Bioinformatics in Health Sciences - MSc

**Subject:** 31020 – PRO. Design and Management of Research Projects

**Credits:** 15.0

**Course:** 2nd

**Teaching languages:** English

**Teachers:** Elisenda Tarrats and Albert Armisen

**Teaching Period:** 2<sup>nd</sup> and 3<sup>rd</sup> term

#### ***Presentation***

This course provides an experience, to develop your knowledge of entrepreneurship. It's dynamic and highly engaging. It's interesting and current. It's challenging and exciting. And it's designed to be relevant to your career - no matter where it may take you and whether or not you want to become an entrepreneur.

This course aims at providing future researchers with some basic knowledge about business plans/project management, with specific emphasis on proper design and implementation of research projects. Additionally, attention is given to aspects related to the use of research results after the project is finished as a key topic for ensuring long-term financing and expansion of the researchers' career.

#### ***Associated skills***

##### **General:**

- Demonstrate understanding of and ability to apply fundamental knowledge and skills related to the creative, innovative and entrepreneurial experience.
- Encourage creative thinking in developing a business idea.

##### **Specific:**

- Recognize and demonstrate the attitudes, behaviors and personal characteristics required of successful entrepreneurs
- Explore and reflect upon your own entrepreneurial attitudes, behaviors and personal characteristics.
- Know the keys to increase probability of success in global businesses.
- Create an appropriate business model.
- Develop a well-presented business plan that is feasible for the student.
- Articulate an effective elevator pitches to gain support for the venture.

## ***Learning outcomes***

This course aims at providing future researchers with some basic knowledge about business plans/project management, with specific emphasis on proper design and implementation of research projects. Additionally, attention is given to aspects related to the use of research results after the project is finished as a key topic for ensuring long-term financing and expansion of the researchers' career.

## ***Contents***

- Introduction to entrepreneurship
- Innovation & Creativity
- Practicing Entrepreneurship
- Social Entrepreneurship
- Transfer of knowledge generated by research centers to companies and entrepreneurs
- Define the Problem
- Gaining Empathy Observations, Insights, & Interviewing
- Customer Segments
- Value Propositions
- Channels & Customer Relationships
- Key Resources, Key Activities, Key Partners, and Costs
- Co-Founders, Key Employees, Boards, and Funding
- Business Model Innovation
- Business Plan
- Common mistakes in a business plan
- Establishing a personal brand: how to sell my business idea
- Making a successful pitch elevator

### Temporal distribution of the subject's contents

Week	Content	Estimated time (hours)	Activities outside the classroom (time studying, preparing activities, etc.)	Estimated time (days)
1st week	M1 - Introduction to entrepreneurship	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 1</i>	
2nd week	M2 - Innovation & Creativity	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 2</i>	
3rd week	M3 - Practicing Entrepreneurship	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 3</i>	
4th week	M4 - Social Entrepreneurship	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 4</i>	
5th week	M5 - Transfer of knowledge generated by research centers to companies and entrepreneurs	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 5</i>	

Week	Content	Estimated time (hours)	Activities outside the classroom (time studying, preparing activities, etc.)	Estimated time (days)
6th week	M6 - Define the Problem	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 5</i>	
7th week	M7 - Gaining Empathy Observations, Insights, & Interviewing	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 6</i>	
8th week	M8 - Customer Segments	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 7 &amp; 8</i>	
9th week	M9 - Value Propositions	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 7 &amp; 8</i>	
10th week	M9 - Value Propositions	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 7 &amp; 8</i>	

Week	Content	Estimated time (hours)	Activities outside the classroom (time studying, preparing activities, etc.)	Estimated time (days)
11th week	M10 - Channels & Customer Relationships	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 8 &amp; 9</i>	
12th week	M11 - Key Resources, Key Activities, Key Partners, and Costs	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 8 &amp; 9</i>	
13th week	M12 - Co-Founders, Key Employees, Boards, and Funding	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 8 &amp; 9</i>	
14th week	M13 - Business Model Innovation	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 8 &amp; 9</i>	
15th week	M14 - Business Plan	35	<i>Watching video</i>	11-12
			<i>Reading Materials</i>	
			<i>Task 10</i>	

Week	Content	Estimated time (hours)	Activities outside the classroom (time studying, preparing activities, etc.)	Estimated time (days)
16th week	M14 - Business Plan	35	<i>Watching video</i>	11-12
			<i>Reading Materials</i>	
			<i>Task 10</i>	
17th week	M14 - Business Plan	35	<i>Watching video</i>	11-12
			<i>Reading Materials</i>	
			<i>Task 10</i>	
18th week	M15 - Common mistakes in a business plan	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Task 10</i>	
19th week	M16 - Establishing a personal brand: how to sell my business idea	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Tasks 10 &amp; 11</i>	
20th week	M16 - Establishing a personal brand: how to sell my business idea	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Tasks 10 &amp; 11</i>	

Week	Content	Estimated time (hours)	Activities outside the classroom	Estimated time (days)
21th week	M17 - Making a successful pitch elevator	15	<i>Watching video</i>	4-5
			<i>Reading Materials</i>	
			<i>Tasks 10 &amp; 11</i>	
22nd week		15		4-5
			<i>Tasks 10 &amp; 11</i>	
23rd week		15		4-5
			<i>Tasks 10 &amp; 11</i>	
Total hours		375		120

### ***Teaching Methods***

This is a distance-learning program of 23 weeks, consisting of auto-learning activities and video streaming master classes. Students will develop a business plan for an innovative business idea at the end of the program.

The course is fully on-line and there isn't any session scheduled. You will do the activities by yourself at your convenience.

### ***Evaluation***

The evaluation of the project is divided as follows:

- Idea Generation: 40%
- Business Plan: 50%
- Video elevator pitch 10%

Projects will be carried out in groups of three or four students and a minimum grade of 5/10 will be necessary, in both the project and the presentation of the elevator pitch, to pass the subject.

## ***Bibliography and information resources***

- Barringer, Bruce R., Ireland Duane. *Entrepreneurship: Successfully Launching New Ventures* (4th Edition). Publication Date: October 27, 2011, ISBN-10: 0132555522. ISBN-13: 978-0132555524.
- Barringer, Bruce R. *Preparing Effective Business Plans: An Entrepreneurial Approach*. Publication Date: January 12, 2008 | ISBN-10: 0132318326 | ISBN-13: 978-0132318327 | Edition: 1
- Casadesus-Masanell, R.; Ricart, J.E. (2009), "Competing Through Business Models", paper published in *Business Model Community*
- Lambing, Peggy A. *Entrepreneurship* (4th Edition). Publication Date: April 20, 2006; ISBN-10: 0132281740, ISBN-13: 978-0132281744.
- Osterwalder, A.; Pigneur, Y. (2011). *Business model generation*. Deusto. Planeta Group.
- Ries, E. (2011) *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Print.