

## Innovation Management (F000892)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

<b>Course size</b>	<i>(nominal values; actual values may depend on programme)</i>		
<b>Credits</b> 3.0	<b>Study time</b> 90 h	<b>Contact hrs</b>	30.0 h

### Course offerings and teaching methods in academic year 2021-2022

A (semester 2)	English	Gent	lecture	5.0 h
			group work	5.0 h
			online lecture	0.0 h
			seminar: coached exercises	20.0 h
B (semester 2)	Dutch		guided self-study	30.0 h
O (semester 2)	English		guided self-study	30.0 h

### Lecturers in academic year 2021-2022

Verleye, Katrien	EB23	lecturer-in-charge
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### Offered in the following programmes in 2021-2022

	crdts	offering
Master of Science in Teaching in Science and Technology (main subject Chemistry)	3	A
Master of Science in Teaching in Social Sciences (main subject Communication Science)	3	B
Bridging Programme Master of Science in Industrial Engineering and Operations Research	3	A
Bridging Programme Master of Science in Industrial Engineering and Operations Research	3	A
Bridging Programme Master of Science in Photonics Engineering	3	A
Master of Science in Chemistry (main subject (Bio)Organic and Polymer Chemistry)	3	A
Master of Science in Chemistry (main subject Analytical and Environmental Chemistry)	3	A
Master of Science in Complementary Studies in Business Economics (main subject Business Economics)	3	A
Master of Science in Communication Science (main subject Communication Management)	3	B
Master of Science in Business Engineering (main subject Data Analytics)	3	A
Master of Science in Business Engineering (main subject Finance)	3	A
Master of Science in Chemistry (main subject Materials and Nano Chemistry)	3	A
Master of Science in Communication Science (main subject New Media and Society)	3	A
Master of Science in Business Engineering (main subject Operations Management)	3	A
Master of Science in Chemistry	3	A
Master of Science in Industrial Engineering and Operations Research	3	A
European Master of Science in Photonics	3	A
Master of Science in Photonics Engineering	3	B
Master of Science in Industrial Engineering and Operations Research	3	A
Master of Science in Photonics Engineering	3	A, O
Exchange programme in Economics and Business Administration	3	A
Exchange Programme in Political and Social Sciences	3	A

### Teaching languages

Dutch, English

### Keywords

Innovation management, technological innovation, green innovation, social innovation, design thinking, ecosystem perspective, circular economy

## Position of the course

Innovation is for most entrepreneurs and companies in Europe the way to achieve enduring competitive advantage but innovation also allows these entrepreneurs and companies along with a wide range of other actors - such as social-profit organizations and governments - to tackle social and/or environmental issues. However, these economic, social, and/or environmental benefits can only be achieved when individuals and organizations are able to manage the innovation process in a thoughtful way. Following the growing importance of innovation at the national and international level, scholars from different disciplines - such as management, economics, sociology, engineering, ... - have tried to better understand the innovation process and provide insight into how individuals, organizations, and complex ecosystems can successfully manage innovation. This interdisciplinary nature of innovation as a subject, however, makes it an exceptionally attractive albeit complex subject to teach and understand. This course encourages students to balance and/or integrate different theoretical perspectives and practical tools, thereby evaluating their own potential as innovation managers.

## Contents

- Innovation management at the system level with specific attention for systemic problems – such as economic recessions, climate change, and social inequality - and systemic instruments for managing transformative change such as the shift towards a circular economy
- Innovation management at the industry/sector level with specific attention for the emergence of technological, green and social innovations, patterns of innovation, standard battles, modularity and platform competition and timing of entry
- Innovation management at the company/organizational level with specific attention for choosing innovation projects, innovation protection, collaborative strategies, and business model innovation (incl. circular business models)
- Innovation management at the project level with specific attention for different ways of managing new product and service development processes (incl. design thinking) along with managing new product and service development teams and embedding these teams in the organization and implementing a deployment strategy

## Initial competences

No prior knowledge required.

## Final competences

- 1 understand the different theoretical frameworks and practical tools associated with innovation management and critically weigh and/or integrate them when analyzing recent and future innovations with an economic, social and/or ecological objective and their management
- 2 formulate a personal viewpoint with regard to recent and future innovations with an economic, social and/or ecological objective and theoretical frameworks and practical tools related to managing these innovations
- 3 reflect upon recent and future innovations and the way in which innovation management contributes to the creation of economic, social and/or ecological value in interdisciplinary teams
- 4 report about analyses and reflections about recent and future innovations and the way in which innovation management contributes to the creation of economic, social and/or ecological value in a structured, scientific, and engaging way
- 5 critically reflect upon one's own innovation management thinking and competences to manage innovation, so that economic, social and/or ecological value is created.

## Conditions for credit contract

Access to this course unit via a credit contract is unrestricted: the student takes into consideration the conditions mentioned in 'Starting Competences'

## Conditions for exam contract

This course unit cannot be taken via an exam contract

## Teaching methods

Guided self-study, group work, lecture, online discussion group, self-reliant study activities, seminar: coached exercises, online lecture, online seminar: coached exercises

## Extra information on the teaching methods

After introducing different theoretical frameworks and practical tools associated with innovation management via lectures - online or not - and self-study, students are invited to the "special

sessions", i.e., seminars (whether or not online) with coached exercises and/or online discussions. These special sessions go along with a group assignment and/or individual assignment and result in a written and/or oral report.

### **Learning materials and price**

Presentations and additional readings are available via Ufora (incl. references to recent academic research).

Handbook : Melissa Schilling "Strategic Management of Technological Innovation", McGraw-Hill International. Sixth Edition, 2020, Price: 50 EUR

### **References**

- Melissa Schilling Strategic Management of Technological Innovation, McGraw-Hill International Sixth Edition, 2020
- Paul Trott Innovation Management and New Product Development. Prentice Hall FT Fifth Edition 2012
- Henry Chesbrough Open Services Innovation Jossey-Bass 2011

### **Course content-related study coaching**

The lecturer is available to answer questions before, during, and after each lecture and/or special session. Additionally, students also get feedback from one another and/or the lecturer during the special sessions. The lecturer also shares feedback about individual and group reports resulting from the special sessions via rubrics in Ufora, thereby allowing students to gain insight into the extent to which the learning objectives are achieved.

### **Evaluation methods**

end-of-term evaluation and continuous assessment

### **Examination methods in case of periodic evaluation during the first examination period**

Written examination with open questions

### **Examination methods in case of periodic evaluation during the second examination period**

Oral examination

### **Examination methods in case of permanent evaluation**

Participation, assignment, report

### **Possibilities of retake in case of permanent evaluation**

examination during the second examination period is not possible

### **Extra information on the examination methods**

The permanent evaluation consists of an evaluation of the participation during coached exercises and/or online discussions and reports associated with the individual and group assignments.

The end-of-term evaluation consists of a written exam with open questions

### **Calculation of the examination mark**

Permanent evaluation (25%), end-of-term evaluation (75%).

To pass a student needs to take part in all forms of evaluation - permanent and the end-of-term evaluation.