Innovation management (for non-IE) Elective Package

Offered by: Department of Industrial Engineering & Innovation Science
Language: English
Primarily interesting for: All students except Industrial Engineering (TBdk)
Contact person: dr. Jeroen Schepers (J.J.L.Schepers@tue.nl)
Prior Knowledge: None
Other important info: The Innovation Management (for non-IE) Elective Package provides easy access to TU/e's Innovation Management master for TU/e bachelor students (see http://www.im-master.nl). After completing this elective package, the following requirements apply:

- Data science and Sustainable innovation majors can directly enroll in the master.
- Psychology & technology majors can directly enroll in the master. For these majors, OHV30 may replace 1ZV20. 1ZEUA0 is then still recommended, but not mandatory for enrolling in the master.
- Automotive, Applied Physics, Electrical Engineering, Industrial Design, and Mechanical Engineering majors have to do 1JV00 (Q1), 2DL30 (Q2) and 1ZV00 (Q2) and as deficiency courses in the master. 1JV00 may be exempted when 1JK00 has been followed as an elective in the bachelor program.
- All other TU/e majors will have to do 1JV00 (Q1) and 1ZV00 (Q2) as a deficiency course in the master. 1JV00 may be exempted when 1JK00 has been followed in the bachelor program.

Course code Course name Schedule Timeslot Level
1JZK40 Designing business processes Q2 B 1. Introductory
OR
1ZV10 Organization, Strategy, and Innovation Q2 C 1. Introductory
1ZV20 Buying behavior and innovation Q3 D 2. Deepening
OR
1ZEUA0 New Product Marketing Q1 A 1. Introductory
1ZV30 Product innovation processes Q4 E 3. Advanced

Content and composition
Innovation is essential for the competitive position of companies. Through the development of desirable new products and services, innovation helps to win new customers and strengthens the loyalty of existing ones. However, many new products and businesses fail or do not deliver the expected results because the competitive environment is dynamic and unstructured, which magnifies wrong managerial choices. The Innovation Management elective package covers strategic, organizational, marketing, and operational aspects of innovation, to enhance students’ understanding of innovation as a business process and their ability to identify improvements to innovation processes. In a broader sense, it provides engineers with the understanding that products and services are not created, nor launched, by engineers only. Many employees, customers, business units, committees and other entities inside and outside an organization play their part in innovation processes.
Course descriptions

Designing business processes
This elective course is about the design of business processes. Central questions are: How can you create an enterprise that is continuously innovating; in which the employees can fulfill their ambitions, and which can boost the performance of its teams. The answer lies in a well thought-through design of the organizational structures and systems. If you are interested to master the competence of designing from an industrial-engineering point of view, than this elective is the best fit for you.

Organization, Strategy, and Innovation
Increasingly, companies must try to survive in a rapidly changing environment. To do so, they must not only sense opportunities but also seize opportunities by translating these into viable business cases and innovative products and services. When seizing opportunities, a clear strategy is essential, as it indicates where you want to go and what steps you must take to get there. In addition, organizational structure and culture perform a key role in implementing the strategy.

Buying Behavior and Innovation
The goal of this course is to advance the students’ knowledge on the core theories, concepts, and methodologies in the fields of consumer behavior and marketing. Upon course completion, students should be able to describe, interpret, and critically evaluate important theory and concepts. They should also be able to apply them in practice. Furthermore, the student will be able to indicate how organizations can gather, analyze, and apply insights in buying decision processes to innovate their products and services. Students should especially be able to set up studies using multidimensional scaling and conjoint analysis techniques.

New Product Marketing
How can a firm increase the likelihood of new product success? This course provides the answer; it provides an overview of the most important theories, models, and concepts in new product marketing. You will learn how customers with similar needs can be bundled into segments and how firms identify target markets and analyze which are most profitable. The course uses a mix of lectures, group assignments, presentations, and interactive cases to apply theory to real-life business situations.

Product Innovation Processes
This course aims to develop the basic knowledge and skills required for successful management of innovation processes in today’s competitive marketplace. This course specifically considers new product and process innovations. The term “product” is used with a broad perspective by capturing products as hybrid forms of physical-products and technology based services (i.e. applications, online/mobile shopping and payment systems, software solutions, etc). The course focuses on (i) how the processes of developing and launching new products look like, on (ii) what the objectives of these processes are, and on (iii) how organizations can successfully manage the development and launch of product innovations.