



PRINCIPLES OF INNOVATION, ENTREPRENEURSHIP, AND MARKETING: THE STREETSCOOTER CASE

COURSE OUTLINE

PROF. DR. MALTE BRETTEL
PROF. DR. STEFANIE PALUCH
PROF. DR. FRANK PILLER
PROF. TORSTEN-OLIVER SALGE, PH.D.
PROF. DR. DANIEL WENTZEL

School of Business and Economics
TIME Research Area | Marketing Group (MAR)

Contact: Stefan Rose | rose@time.rwth-aachen.de

SEPTEMBER 2019

1 COURSE OVERVIEW

| | |
|---------------------------|---|
| Course Name: | Principles of Innovation, Entrepreneurship, and Marketing: The StreetScooter Case |
| Degree Programmes: | 1. Master BWL 2. Master Wirtschaftsingenieurwesen 3. Master Wirtschaftswissenschaften |
| Lecturer: | Prof. Dr. Daniel Wentzel |
| Contact: | Stefan Rose, M.Sc. (rose@time.rwth-aachen.de) |
| Location and Time: | Online course |
| Content Description: | <p>The course provides an introduction into the process of technology and innovation management. This will involve a detailed analysis of the tools and methods that may be employed to understand and identify customer needs as well as the process that companies can set in place to foster and launch successful technological innovations. A special emphasis will be placed on analyzing how companies can benefit from entrepreneurial thinking to innovate more successfully and on understanding how they can build entire ecosystems around their products and services. As part of the course, the theoretical knowledge will be transferred and applied to a recent successful technological innovation: The StreetScooter, the electric delivery vehicle of Deutsche Post DHL.</p> |
| Qualification Objectives: | <p>The course aims to provide students with an in-depth understanding of the process of technology and innovation management. Specifically, the course aims to familiarize students with state-of-the-art tools, methods, and theories and help them understand how these may be used to solve and organize complex innovation challenges, placing a special emphasis on interdisciplinary thinking at the intersection of management and technology.</p> <p>Another aim of the course is to enable students to critically reflect on the current theoretical and managerial discourse related to technology and innovation management. To this end, students will analyze and critically discuss current case studies and academic articles and will also evaluate and reflect on the work of their peers. Hence, the course also aims to enhance students' critical thinking and communication abilities.</p> |
| Literature: | See readings below |
| Course Examination: | 1. Written exam (60%) 2. Weekly assignments (20%) 3. Case study analysis (20%) |

| | |
|-----------------------------|--|
| | To qualify for the final exam, students must have received a pass mark for the recap questions: (1) at least 60% of correct answers or (2) at least 50% of correct answers and a score that is no more than 22% below class average. |
| Participation Requirements: | Solid command of the English language |
| Type of Teaching Event: | Video lectures |
| Language: | English |
| Credits: | 5 |

2 COURSE ORGANIZATION

The course starts with a Kick-Off session presented in the traditional classroom format. The following eight sessions are fully delivered online (i.e., students do not have to be physically present in Aachen – except for the exam – to complete the course). Each of these online sessions will focus on a different part of the process of technology and innovation management and will be presented by a different lecturer.

The online sessions will be released sequentially via the e-learning platform edX edge and will be subdivided into different parts. Part A of each session will be based on video lectures that provide an introduction into the relevant theories of technology and innovation management and discuss different phases of the StreetScooter innovation process. Part B will focus on a series of recap questions that follow each session and that will test students' understanding of the content of the video lectures. In Part C, students will critically analyze and discuss a research paper that builds on and extends the topics of the video lectures. The table below depicts the preliminary schedule.

Preliminary structure and schedule

Session 0 Kick-Off

Type *Classroom (face-to-face)*
 Date 12.11.2019
 Time 6:30 - 8 PM
 Location H11 (1385 | 218)
 Professor Prof. Daniel Wentzel

Session 1 Defining and Understanding Innovations

Type *Online*
 Date 13.11. - 19.11.
 Professor Prof. Daniel Wentzel
 Deliverables Completion of recap questions

Session 2 The Customer: Understanding the Opportunity

Type *Online*
Date 20.11. - 26.11.
Professor Prof. Daniel Wentzel
Deliverables Completion of recap questions; Submission of weekly assignment

Session 3 The Proposition: Creating Superior Customer Value

Type *Online*
Date 27.11. - 03.12.
Professor Prof. Stefanie Paluch
Deliverables Completion of recap questions; Submission of weekly assignment; Peer review of weekly assignment from Session 2

Session 4 The Process: Managing a Promising Idea

Type *Online*
Date 04.12. - 10.12.
Professor Prof. Frank Piller
Deliverables Completion of recap questions; Submission of weekly assignment; Peer review of weekly assignment from Session 3

Session 5 The Mindset: Thinking and Acting Like an Entrepreneur

Type *Online*
Date 11.12. - 17.12.
Professor Prof. Malte Brettel
Deliverables Completion of recap questions; Submission of weekly assignment; Peer review of weekly assignment from Session 4

Session 6 The Development: Getting the Idea Off the Ground

Type *Online*
Date 18.12. - 24.12.
Professor Prof. Günther Schuh
Deliverables Completion of recap questions; Peer review of weekly assignment from Session 5

Session 7 The Network: Managing the Ecosystem

Type *Online*
Date 03.01. - 09.01.
Professor Prof. Torsten-Oliver Salge
Deliverables Completion of recap questions; Submission of weekly assignment

Session 8 Return on Engineering

Type *Online*
Date 10.01.-16.01.
Professor Prof. Achim Kampker
Deliverables Peer review of weekly assignment from Session 7

All lecture slides, weekly assignments, and case studies will be distributed via the edX edge course room. Communications is organized via an RWTHmoodle course room. Using the “rwth-aachen” email address, students will be automatically invited to join the edX edge course room. Further instructions with regards to registration with edX will be provided in the invitation email.

The final grade will be composed of three elements:

- | | |
|--------------------------|------------|
| (1) Weekly assignments: | 20 percent |
| (2) Case study analysis: | 20 percent |
| (3) Written exam: | 60 percent |

Qualification for the written exam requires students to have received a pass mark in the video recap questions. All course-related material and work will be in English. Please note that the exam will also be in English and that students are required to answer in English.

3 WEEKLY ASSIGNMENTS

To gain a deeper understanding of the contents presented in the videos, students are required to prepare and submit five weekly assignments. These assignments consist in the review of an academic paper that relates to the topic of the respective week. Each paper is reviewed by answering up to three questions, for which responses should amount to approx. 1000 words in total (all three responses taken together). In each of the five weeks, students will be assigned a paper from the list provided below. The allocation of papers to students is random and will be announced at the beginning of the course.

Papers for assignments (preliminary)

Session 1: Defining and Understanding Innovations

no assignment in this week

Session 2: The Customer: Understanding the Opportunity

1. Florén, H, Frishammar, J. 2012. From Preliminary Ideas to Corroborated Product Definitions. *California Management Review* **54**(4): 20-43
2. Leonard, D, Rayport, JF. 1997. Spark Innovation Through Empathic Design. *Harvard Business Review* **75**(6): 102-113
3. Ulwick, AW. 2002. Turn Customer Input into Innovation. *Harvard Business Review* **89**(1): 91-97

Session 3: The Proposition: Creating Superior Customer Value

1. Anderson, JC, Narus, JA, van Rossum, W. 2006. Customer Value Propositions in Business Markets. *Harvard Business Review* **84**(3): 90-99
2. Fournier, S, Avery, J. 2011. Putting the 'Relationship' Back Into CRM. *MIT Sloan Management Review* **52**(3): 63-72
3. Vargo, S, Lusch, RF. 2004. Evolving to a New Dominant Logic for Marketing. *Journal of Marketing* **68**: 1-17.

Session 4: The Process: Managing a Promising Idea

1. Cooper, RG. 2008. Perspective: The Stage-Gate Idea-to-Launch Process - Update, What's New, and NexGen Systems. *Journal of Product Innovation Management* **25**(3): 213-323
2. Cooper, RG, Sommer, AF. 2016. The Agile–Stage-Gate Hybrid Model: A Promising New Approach and a New Research Opportunity. *Journal of Product Innovation Management* **33**(5): 513-526
3. Verganti, R. 2008. Design, Meanings, and Radical Innovation: A Metamodel and a Research Agenda. *Journal of Product Innovation Management* **25**(5): 436-456

Session 5: The Mindset: Thinking and Acting Like an Entrepreneur

1. Birkinshaw, J, Haas, M. 2016. Increase Your Return on Failure. *Harvard Business Review* **94**(5): 88-93
2. Blank, S. 2013. Why the Lean Start-Up Changes everything. *Harvard Business Review* **91**(9): 65-72
3. Schlesinger, LA, Kiefer, CF, Brown, PB. 2012. New Project? Don't Analyze - Act. *Harvard Business Review* **90**(3): 154-158

Session 6: The Development: Getting the Idea Off the Ground

no assignment in this week

Session 7: The Network: Managing the Ecosystem

1. Adner, R. 2006. Match Your Innovation Strategy to Your Innovation Ecosystem. *Harvard Business Review* **84**(4): 98-107
2. Adner, R, Kapoor, R. 2016. Right Tech, Wrong Time. *Harvard Business Review* **94**(11): 61-67
3. Williamson, PJ, De Meyer, A. 2012. Ecosystem Advantage: How to Successfully Harness the Power of Partners. *California Management Review* **55**(1): 24-46

Session 8: Return on Engineering

no assignment in this week

Students need to prepare and submit the assignments within the week of release. In the subsequent week, a *peer review process* will take place, requiring students to review and evaluate the results of two of their peers for the same paper. In return, each student will receive two reviews for their assignment by the end of the second week. The process assigns peers randomly and results as well as reviews are anonymized. **Participation in this peer review process is considered part of the weekly assignment and hence is mandatory. It aims to help students develop the skills required to effectively provide feedback.**

Average performance in the five assignments accounts for 20% of the final grade. Each assignment carries the same weighting. **Important:** Please note that adhering to the time schedule and the deadlines is critical, i.e. students will not be able to submit their weekly assignment if they have missed the critical deadline for the respective session.

4 CASE STUDY ANALYSIS

By the end of the course, students are required to prepare and submit an analysis of a written case study. The selected case studies are published by leading international business schools (e.g., a Harvard case) and will relate to the topics presented in the sessions. Students' analyses should amount to 2500-3000 words (without references and appendices). The allocation of case studies to students is random. The results might also be subject to a peer review process, running under the same conditions that apply for the weekly assignments. The exact case studies will be announced at the beginning of the course on November 13th.

Please note the following dates:

| | |
|-----------------------------------|-------------------------|
| Preparation and submission | 10.01.2020 - 24.01.2020 |
| Peer review process | 25.01.2019 - 31.01.2019 |

The case study accounts for 20% of the final grade.

5 COURSE EXAMINATION

The exam for this course, counting for 60% of the overall grade, is scheduled to take 60 minutes. The exam will test students' ability to critically reflect on the topics of the course and will focus on the contents of the video lectures and the additional readings. Note that the exam is paper-based and that students will need to be physically present in Aachen to complete the exam. The exam dates are provided below:

| Exam period | Date |
|--------------------|-------------|
| PT 1 | 13.02.2020 |
| PT 2 | 31.03.2020 |

A maximum of 60 points can be obtained. A minimum of 30 points will be required to pass the exam. The individual written exam will be formulated in English language and students will also need to answer the questions in English. Besides non-electronic dictionaries (e.g., German-English) no other aids are permitted and dictionaries are likely to be checked during the exam.

IMPORTANT NOTES:

Recap questions

The video lectures feature “*recap questions*” which are designed to test students’ understanding of the lectures’ contents. These questions are presented in formats such as multiple choice or checkboxes and are **graded**. **Students have only one attempt to provide the correct answer**. In order to be able to sit the exam, a pass mark is required, i.e. (1) at least 60% of correct answers or (2) at least 50% of correct answers and a score that is no more than 22% below class average. All recap questions carry the same weighting. The questions have to be answered **within the week they have been released**. Again, note that it is important to adhere to the timing of the course if the course is to be passed.

Preparation of submissions

The following rules apply to **all coursework** required in this course:

1. Copying text elements from original articles, or any other type of literature, **without accurate and complete indication** of the source is considered an act of plagiarism and will lead to a fail mark.
2. Responses that merely consist of **sequences of citations**, be they direct or indirect, are not acceptable and will lead to a fail mark.
3. When preparing submissions, students are required to adhere to the instructions provided in the **TIME-Guidelines for Scientific Working**.

Transfer of marks

All graded elements need to be passed in the **same semester**.

6 LITERATURE

Apart from the readings provided in the edX edge course room, there is no specific textbook required for this course.

We hope you will enjoy the course and look forward to working with you!