

# Customer-Centered Innovations with Design Thinking and Lean User Research

**Academic Level:** BSc

**Credit Value:** 5 ECTS

**Hours in class:** 32 hours

**Lecturers** Nikolaev, Alexey V., Sheresheva, Marina Y.

## Aim of the course

Ability to find and address real customer needs, create new unique customer experiences, communicate effectively your new products/services ideas to your target audience – are among the core factors of managing innovation successfully. This is essentially the task of the navigating through the first stages of the iterative innovation process also known as “Fuzzy Front end of Innovation”.

In this course the students will learn about

- key concepts and methods of generating and testing customer-centric business ideas (e.g. Design Thinking, User Research, Lean Startup, Business Model Innovation, Design Sprints);
- prospective technologies and markets enabling creation of new unique user experiences;
- modern tools and approaches fostering creativity & innovations, facilitating team-based and project-based work of a cross-disciplinary design teams.

In particular, students will learn how to get insights into customer needs, get hands-on knowledge on different approaches to market research and customer co-creation. As well the course reviews modern methods for generating market insights, turning them into promising concepts, validating and enhancing the concepts through rapid prototyping, experimentation and user tests.

**Teaching Methods** Lectures, seminars, presentations, discussions, case-studies, team and project based learning, experiential learning

## Plan of the course / Course schedule / Course outline

Topic	
Class 1. Introduction to Customer-Centered Innovation. Key concepts and methods of the structures innovation process: Design Thinking, User Research, Lean Startup, Business Model Innovation, Design Sprints. Prospective markets and areas for customer-centered innovations enabled by technologies.	4
Class 2. Modern tools and approaches fostering creativity & innovations, facilitating team-based and project-based work of a cross-disciplinary design teams.	4

Need finding: methods and tools of User Research and Design Research. Market research. Competitive analysis.	
Class 3. Concept (solution) ideas generation. Business Model drafting and business opportunity assessment.	4
Class 4. Market validation, “marketing mix” ideation for the prospective product & service.	4
Class 5. Tools and technologies for rapid prototyping and experimentation with users.	4
Class 6. User tests: why, what, how. Getting insights from user tests and converting them into actionable product/service enhancing steps.	4
Class 7. How to pitch your prototype, product/service, prospective business.	4
Class 8. Teams projects presentations and discussion	4

### Assessment Methods / Grading

	Grading (max)
Assignments in class	40%
Group project report (written assignment)	40%
Group project report (presentation)	20%

### Evaluation criteria

- **Group project report:** topic coverage, quality of comments (50% if late)
- **Assignments in class:** activity, scope of participation, quality of comments
- **Exam:** report & presentation quality

### Recommended Reading

- Bettencourt, L. A., & Ulwick, A. W. (2008). The customer-centered innovation map. *Harvard Business Review*, 86 (5), 109.
- Chesbrough, H. (2010). Business model innovation: opportunities and barriers. *Long range planning*, 43(2), 354-363.
- Dorst, K. (2011). The core of ‘design thinking’ and its application. *Design studies*, 32(6), 521-532.
- Eisenberg, I. (2011). Lead-user research for breakthrough innovation. *Research-Technology Management*, 54(1), 50-58.
- Gilmore J.H., Pine II B.J. (2007). *Authenticity: What consumers really want (Vol.1)*. Boston, MA: Harvard Business School Press.
- León, H. C. M., & Farris, J. A. (2011). Lean product development research: Current state and future directions. *Engineering Management Journal*, 23(1), 29-51.
- Pisano, G. P. (2015). You need an innovation strategy. *Harvard Business Review*, 93(6), 44-54.
- Romero, D., & Molina, A. (2011). Collaborative networked organisations and customer communities: value co-creation and co-innovation in the networking era. *Production Planning & Control*, 22(5-6), 447-472.
- Teixeira, J., Patrício, L., Nunes, N. J., Nóbrega, L., Fisk, R. P., & Constantine, L. (2012). Customer experience modeling: from customer experience to service design. *Journal of Service Management*, 23(3), 362-376.