



Hackathon

General data

Course code:	
ECTS credits:	3
Semester:	fall/spring
Course restrictions:	-
Course leader (with availabilities):	Zsolt Bedő, Dr. bedo.zsolt@tkk.pte.hu +36 72 501 599/ 23436
Further lecturer(s) (with availabilities):	-

1. Description and aims

The module introduces students to the world of startups and business development, topics that are key factors in today's exponentially evolving global economy. Students respond to real-world challenges in teams, which they learn more about through the problems associated with the challenge. After recognizing and selecting pain points, students work on specific solutions. They get preliminary information about the latest trends related to the topic. With this experiential learning method, students build their own startup business concept using state-of-the-art methods that require them to step out of their own comfort zone and conduct business concept validation actions in a real-world environment. This Challenge-based Learning (CBL) framework initially emerged as an approach to foster learning while solving realworld problems. And the Design Thinking paradigm shifts from traditional product design to embrace complex problems and focus on consumer experiences and the various possibilities of experience in using the artifact at all stages of its life cycle. The design thinking strategy is a human-centered approach. It establishes the understanding of the users as the source of all insights to solve problems and create appropriate solutions. And finally, the methodology that brings it all together: Hackathon. A hackathon is an event where creative, open-minded, enterprising people from different disciplines meet and one day - in an intensive developer sprint - work together to create a solution to a particular industry, technology or challenge. The goal is to create an MVP, ie. a Minimum Viable Product - a product demo version, NOT a prototype - during the event, thus supporting the viability of the idea. In many cases, teams, either out of self-interest or as part of a call, continue to work on the MVP after the hackathon until they create a final, marketable solution.

2. Course Intended Learning Outcomes (CILOs)

Upon successful completion of this module, the student will be able to:

1. Understand the local solution to global problems and the concept of scalability. (PILO1)
2. Apply the method of opportunity seeking and recognition. (PILO2)
3. Apply the concept of business model and understand the process of generating a value proposition. (PILO2)
4. Analyze the pain points of different target groups and the business opportunities arising from the challenges associated with them. (PILO4)
5. Understand competitor analysis and benchmarking processes. (PILO4)
6. Evaluate feedback from future users given to the MVP produced by students (PILO3)



7. Create product and service concepts that can serve as a base for venture capital inclusion into their startup business. (PILO5)
8. Pull together resources in order to succeed in the product and or service building process (PILO5)

(The remarks in brackets express each CILO's connection to the Program Intended Learning Outcomes (PILOs).)

3. Content, schedule

The discussion of topics is divided into the following chapters:

1. Team formation, opportunity seeking and recognition
2. Value proposition and target market
3. Product – market fit
4. Minimum Viable Product
5. Scalability
6. Pitching your business concept

4. Learning and teaching strategy, methodology

This module applies Experiential learning method, which implies that students are required to actively engage in the so called learning by doing activity. Hackathons are a great example of an instructional strategy allying practical, contextual and social aspects of this contemporary pedagogical mindset in an engaging learning experience. After understanding the concept of the business model generation methodology students have to start building their own business concept while experiencing the theoretical underlying in operation. Students have to engage with the stakeholders of the real life business environment to test their product, service and business concepts. Being able to gather information during these validation events and to be able to process, analyze the gathered information will be crucial to succeed. Students at the end of the course will have the opportunity to pitch their business idea to real life venture capitalist. If their concept is viable investors might provide further funding to take the business to the next phase. One supporting methodology is Design Thinking, which is a process of problem-solving centered on human problems and consists of three spaces: inspiration, ideation, and implementation. Inspiration is the "problem or opportunity that motivates the search for a solution", ideation is the "process of generating, developing, and testing ideas", and implementation "the path that leads from the project stage into people's lives".

5. Assessment

Formative assessment elements: Oral feedback on in-class activities, and on the weekly project progress.



Summative assessment elements:

Name of the element	Weight	Type	Details	Retake opportunity	Req.*	Related CILOs
Platform activity (both individually and as a team member)	10%	bejegyzések	information gathering, challenge mapping, inspirational posts	non	yes	1,3,4
Problem seeking and selection (bug list)	10%	documents	Bug list	non	yes	1,2
Competitor analysis	15%	documents	Competitor analysis	non	yes	2,4
Defining the target group (creating 3 personas)	15%	documents	Persona template	non	yes	3,4
Making a Minimal Viable Product	20%	documents	MVP samples and tips	non	yes	2,3,4
Pitch	30%	oral	Pitch template and storymap, event closing presentation	non	yes	1,5

* Req.: Completion of the element is required to pass the course, irrespective of the performance in other elements.

6. Learning materials

Alexander Osterwalder & Yves Pigneur: Business Model Generation, 2010, ISBN: 978-0470-87641-1
Dan Senor and Saul Singer Start Up Nation, 2011.
Eric Ries: Lean Startup, 2010.
THE NUTS & BOLTS OF GREAT BUSINESS PLANS, Michael H. Morris

All templates and tutorial will be accessible in the <https://openup.pte.hu/> or <https://hackathon.openup.education/> platform's project room.

7. Further information

Further sources of information on the industry:

<https://startupstash.com/>

<https://www.businessinsider.com/>

<https://www.entrepreneur.com/>

<https://yourstory.com/>

<https://startup.google.com/stories/>

<https://www.startupdeals.tech/>

<https://www.fundz.net/startup-companies-ultimate-guide/>

<https://www.seedtable.com/>

<https://angel.co/>

<https://sifted.eu/>

<https://www.startupranking.com/>

<https://www.beststartup.co.uk/>

<https://500.co/>

<https://medium.com/startup-foundation-stories>

<https://startup.info/>

<https://www.forentrepreneurs.com/>