10. DESIGN-THINKING AND DEVELOPMENT OF INNOVATIVE PRODUCTS

Program of educational discipline

Program budget

№	Indicator	Value
1	Approximate student capacity, persons	200-250
2	Total hours	48
3	Lecturers pay per hour, EUR	30
4	Total lecturing cost, EUR	1440
5	Total administrative cost, EUR (15%)	210
6	Total course cost, EUR	2650

Objectives of the program: The program provides participants with a comprehensive understanding of the integrated combination of new product development methods: Design Thinking/Lean Startup/Agile. Design Thinking reveals and correctly reflects the client's problems and allows you to generate better ideas for solving them. Through experimentation, learning, measurement, creation and feedback, Lean Startup helps to most effectively transform these ideas into the most effective and viable innovative products and business models. Agile is a methodology for creating a product based on the principles of transparency, iterations, and experiments in conditions of constant change through the use of gradual innovations. This program is useful for leaders and team members, managers of various levels and employees who seek to develop and integrate best creative practices and an innovative culture, create and solve

the problems of modern business in a faster, more flexible and more efficient way.

Program structure:

Topic 1. Innovation as an integral part of large-scale transformations in modern business

1.1. The nature of innovation.

1.2. Gradual action versus a radical, disruptive, or revolutionary mode of change.

1.3. Impact of technology and thinking on innovation.

1.4. The matrix of technologies and thinking as a model for determining different innovative ways and different innovative results of the organization.

Topic 2. Integration of the Design Thinking method and Lean Startup/Agile Scrum methods

2.1. Characteristics of Gartner's integration model.

2.2. Features of the "Innovator Method" integration model and its stages: Insight, Problem, Solution, Business model.

Topic 3. Design thinking skills: observation, questioning, collaboration, experimentation

3.1. Identifying and defining customer problems through empathy mapping, creating a customer profile.

3.2. Mapping the customer journey for B2B and B2C segments under conditions of uncertainty. Carrying out the analysis of the path line through the questionnaire "5 why?".

3.2. Determining the critical deep root cause for detailed investigation and building a root cause tree.

3.3. Creation of a list of questions (or assumptions) about deep reasons that need to be answered with the help of experiments with buyers.

3.4. Creating an overall picture of the client's problem to be solved.

Topic 4. Design. The business idea of an innovative project and the sources of its formation

4.1. Creation of a minimally viable prototype.

4.2. Diagnostics of idea viability, types of prototyping (theoretical prototype, virtual prototype).

4.2. Verification of minimum viable product.

4.3. Testing: wow test, NPS test, paid test.

4.4. Creating a minimally excellent product.

Topic 5. The essence, types and features of the business model.

5.1 Business model - Canvas template.

5.2. Building a business model based on the Lean Canvas template.

5.3. Configuration of business model templates.

Topic 6. Justification of the creation of an innovative product and its launch on the market based on the Agile Scrum model

6.1. Determination of sprint duration and number of sprints.

6.2. Preparation of the product backlog, use of the checklist.

6.3. Preparation of sprint planning.

5.4. Preparation of the sprint backlog.

5.5. Reviewing the sprint and evaluating its results.

Topic 7. Financial analysis

7.1. Economics of product development

7.2. Financial modeling of the project

7.3. Calculating Net Present Value (NPV) and its impact on product decision making.
7.4. Analysis of cash flows.

The program lasts 8 weeks with 6 hours of study per week. Mutual learning is conducted in the form of discussion forums and surveys. Video lectures and training sessions are conducted live with questions and answers. Test tasks. Cases. Practical skills training. Exercises for teamwork.