**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE**

**DMYTRO MOTORNYI TAVRIA STATE AGROTECHNOLOGICAL UNIVERSITY**

**Business and Economics Faculty**

**Marketing Department**

**DESIGN THINKING**

STUDENT GUIDES FOR INDIVIDUAL WORK

for the Master Degree applicants

on the ***075 Marketing*** Speciality

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**INTRODUCTION**

Operating in a competitive environment requires business representatives to implement innovative approaches and technologies of doing business, meet the needs of key consumers based on a detailed study of their needs and individual needs, the formation of original marketing strategies and market specific needs of certain populations. Understanding by modern marketers of the use of such an effective method of generating innovative ways to solve marketing problems, as design thinking, is aimed at forming knowledge, skills and abilities to find ways to creatively solve applied problems in group work within the team.

Design thinking, a method of creative and collaborative problem solving originating in the tactics of designers, is a product design and development process that is, more and more, being used as a tool to move innovation forward and structure creation processes. By embedding learning and reflective practices into the structure of design thinking, a hybrid model emerges that is a more effective tool for framing and solving these types of problems within teams.

Design thinking as a method of creative joint solution of existing problems is a process of product design and development and is increasingly used as a tool to promote innovation and structure product development processes. The harmonious combination of learning and reflective practices in the structure of design thinking forms a hybrid model which is the most effective tool for creating and solving problems of teamwork on the collective creation of innovations.

*The purpose of the course* is to master the theoretical knowledge and practical skills needed to identify existing problems of potential customers and generate innovative ways to solve them.

*Course objectives* include formation of a systematic approach to design thinking; strengthening the skills of creative thinking in solving problems; strengthening the skills of teamwork in the search for innovative ways to solve existing problems; mastering the methods of generating innovative approaches to solving the existing problem.

The Student Guides for Individual Work contain some problem situations and tasks for self-assessment of learning results on each topic. The materials will help students understand the need and practical uses of methods for design thinking.

**COURSE STRUCTURE**

| **Week number** | **Types of lessons** | **Course content and tasks for individual work** | **Amount** |
| --- | --- | --- | --- |
| **hours** | **grade** |
| **lec** | **lab** | **pract** | **ind** |
| **Module 1. *Methods of problem diagnostics*** |
| 1-2 | Lecture 1 | Design thinking approach: principles and process. Empathy: understanding human needs and hardships | 2 | - | - | - | - |
| Practical 1 | Design thinking approach: principles and process. Empathy: understanding human needs and hardships | - | - | 4 | - | 5 |
| Individual work  | Online activities from the university e-learning course | - | - | - | 15 | 4 |
| 3-4 | Lecture 2 | Identifying the problem: reformulation and defining the problem in human-oriented ways | 2 | - | - | - | - |
| Practical 2 | Identifying the problem: reformulation and defining the problem in human-oriented ways | - | - | 4 | - | 5 |
| Individual work | Online activities from the university e-learning coursePresentation development | - | - | - | 15 | 3 |
| 5-6 | Lecture 3 | Generating ideas: techniques and tools for creating the concept of solutions | 2 | - | - | - | - |
| Practical 3 | Generating ideas: techniques and tools for creating the concept of solutions | - | - | 4 | - | 5 |
| Individual work | Online activities from the university e-learning coursePresentation development | - | - | - | 14 | 3 |
| ***Total for Module 1 – 62 hours*** | **6** |  | **12** | **44** | **25** |
| ***Final module test 1*** |  |  |  |  | **10** |
| 9-10 | Lecture 4 | Prototyping: application of a practical approach to modeling ideas | 2 | - | - | - | - |
| Practical 4 | Prototyping: application of a practical approach to modeling ideas | - | - | 6 | - | 7 |
| Individual work | Online activities from the university e-learning coursePresentation development | - | - | - | 20 | 5 |
| 11-13 | Lecture 5 | Testing: developing a prototype of the variant of solving the problem and estimating the obtained results | 4 | - | - | - | - |
| Practical 5 | Testing: developing a prototype of the variant of solving the problem and estimating the obtained results | - | - | 10 | - | 8 |
| Individual work | Online activities from the university e-learning coursePresentation development | - | - | - | 22 | 5 |
| ***Total for Module 2 – 58 hours*** | **6** |  | **10** | **42** | **25** |
| ***Final module test 2*** |  |  |  |  | **10** |
| ***Exam*** |  |  |  |  | **30** |
| ***Total for the course – 120 hours*** | **12** |  | **22** | **86** | **100** |

1. **DESIGN THINKING APPROACH: PRINCIPLES AND PROCESS. EMPATHY: UNDERSTANDING HUMAN NEEDS AND HARDSHIPS**

### 1.1. Elaboration of theoretical material:

1. The essence and purpose of design thinking
2. The purpose and objectives of design thinking.
3. Key features of design thinking.
4. The essence of the divergent phase of design thinking.
5. The essence of the convergent phase of design thinking.
6. The relationship of such elements as inspiration, idea, realization.
7. Stages of the design thinking process.
8. The essence of empathy in the process of design thinking.
9. The purpose of creating a map of empathy.
10. The essence of "insights".

***1.2. Individual processing of additional material (preparation of presentations)***

1. History of successful practices of application of design thinking in business.
2. Comparative analysis of standard approaches to solving business problems related to the creation of new products and services, and design approach.
3. Characteristic features of convergent and divergent approaches to solving practical problems.
4. Self-analysis of personal features of application of convergent and divergent thinking at the decision of applied problems and problems.
5. Specific signs of empathy.
6. Possibilities of using information technologies to create a map of empathy.
7. The role of insights in determining the trajectory of innovative activity of the team.

### 1.3. Testing [Topic 1]

1. **IDENTIFYING THE PROBLEM: REFORMULATION AND DEFINING THE PROBLEM IN HUMAN-ORIENTED WAYS**

### 2.1. Elaboration of theoretical material:

1. The essence and tasks of the empathy stage.
2. Methods of analysis of consumer behaviour at the stage of empathy in design thinking.
3. The content and objectives of ethnography as a qualitative method of consumer research.
4. The task of creating a map of empathy and the tools they use for this.
5. The concept of consumer profile and its purpose.

***2.2. Individual processing of additional material (preparation of presentations)***

***Task 1.***

According to the chosen variant of the product (or service) for processing to substantiate alternative variants of narrow categories of consumers. Justify the choice of a tool for generalizing data and upload screens of generalized information on TSATU information portal[[1]](#footnote-0).

***Task 2.***

Using information resources and online services to develop a map of empathy to reproduce the results of processing the stage of empathy in the process of finding innovative ideas for solving key problems of the target group of consumers.

***Task 3.***

Develop a consumer profile of the researched product (or service) that was researched at the previous stage. Download the results of graphical interpretation on TSATU information portal.

### 2.3. Testing [Topic 2]

1. **GENERATING IDEAS: TECHNIQUES AND TOOLS FOR CREATING THE CONCEPT OF SOLUTIONS**

### 3.1. Elaboration of theoretical material:

1. The purpose and objectives of the focusing process.

2. The essence of the concept of "composite consumer".

3. Characteristics of the content of the procedure for formulating the problem.

4. Procedure for selection, sorting and structuring of basic ideas.

5. The purpose of generating ideas.

6. Methods of generating ideas.

7. Factors influencing the choice of a method of generating ideas.

***3.2. Individual processing of additional material (preparation of presentations)***

***Task 1.***

Justify the choice of method of generating an idea for the researched product (or service) and determine the tool for visualization of the obtained results.

***Task 2.***

Develop instructions for defining the rules of group interaction in the facilitation process in order to generate ideas and upload it on TSATU information portal.

***Task 3.***

To substantiate a specific identified problem of the target consumer, which will be further processed in the next stages.

### 3.3. Testing [Topic 3]

1. **PROTOTYPING: APPLICATION OF A PRACTICAL APPROACH TO MODELING IDEAS**

### 4.1. Elaboration of theoretical material:

1. The purpose and objectives of the prototyping process.

2. The meaning of the concept of "prototype", types of prototypes.

3. Tools used to prototype a new product or service.

4. The purpose of storytelling as a prototyping tool.

5. Purpose of bodystorming as a prototyping tool.

6. The purpose of using storyboards in the prototyping process.

7. Key principles that must be followed in the process of creating prototypes of new products and services.

***4.2. Individual processing of additional material (preparation of presentations)***

***Task 1.***

Choose one of the tools to create a prototype from the following list:

– storytelling - a method of presenting an idea in the form of a story, characterized by a higher level of customer orientation;

– cardboard and paper models - a method of creating many solutions quickly and without significant costs;

– storyboard - a method of creating a frame-by-frame description of the use of products and services;

– Lego constructor;

– stop motion - creating a video that will form an idea of the atmosphere and conditions of use of a product that has not yet been created;

– bodystorming - images of services using people.

Justify the choice of tool, upload the results of the justification on TSATU information portal.

***Task 2.***

Develop several alternative prototypes of an innovative product or service in the research area using information resources. Upload the result on TSATU information portal.

### 4.3. Testing [Topic 4]

1. **TESTING: DEVELOPING A PROTOTYPE OF THE VARIANT OF SOLVING THE PROBLEM AND ESTIMATING THE OBTAINED RESULTS**

### 5.1. Elaboration of theoretical material:

1. The purpose of the process of testing a prototype of a new product or service.

2. Types of prototype testing in design thinking.

3. Technology and procedure of prototype testing.

4. The purpose of testing a prototype of a new product or service.

5. Criteria for recognizing test results as positive or negative.

***5.2. Individual processing of additional material (preparation of presentations)***

***Task 1.***

To substantiate the choice of methods of testing the created prototypes by potential consumers. Upload the results of the justification on TSATU information portal.

***Task 2.***

Justify the choice of method for evaluating the developed ideas. Evaluate the results and upload the data on TSATU information portal.

### 5.3. Testing [Topic 5]

**RECOMENDED SOURCES**

***Basic***

1. Bender, Rahmin.(2020). Design Thinking as an Effective Method for Driving Innovative Solutions to Wicked Problems. Fielding Graduate University; <https://search.proquest.com/docview/2394838219?pq-origsite=primo>
2. Coker, Alison. (2019). A Design Thinking Approach to Improve School Leader Onboarding in Context of Creating a Principal Succession Management Framework. The Stout School of Education; https://search.proquest. com/docview/2414802683/?pq-origsite=primo
3. Christian Mueller-Roterberg (2018). Handbook of Design Thinking. Tips & Tools for how to design thinking.
4. Gasparini, Andrea. (2020). Design Thinking for Design Capabilities in an Academic Library. University of Oslo; [https://www.duo.uio.no/ handle/10852/72835](https://www.duo.uio.no/%20handle/10852/72835)
5. MURAL - лучшая виртуальная доска для коллективной работы (2020). <https://lifehacker.ru/mural-ly/>
6. Most Catherine (2018). Design thinking methods for career planning. <https://uxdesign.cc/design-thinking-methods-for-career-planning-7af7e5b27cd1>
7. The Field Guide to Human-Centered Design. (2015). 1st Edition. ISBN: 978-0-9914063-1-9. 192 psl
8. Van Gompel, Kristin. (2019). Cultivating 21st Century Skills: An Exploratory Case Study of Design Thinking as a Pedagogical Strategy for Elementary Classrooms. Pepperdine University; [https://search.proquest.com/docview/ 2275957805/?pq-origsite=primo](https://search.proquest.com/docview/%202275957805/?pq-origsite=primo)
9. Wang, Jennifer. (2020). Developing Teachers Technological, Pedagogical, and Content Knowledge (TPaCK) Through Design Thinking and Community of Practice. San Jose State University; [https://search.proquest.com/docview / 2425886039/?pq-origsite=primo](https://search.proquest.com/docview%20/%202425886039/?pq-origsite=primo)

***Additional***

1. Hayes, Nora. (2018). Design Thinking: Using Creativity and Collaboration to Transform Public Relations. University of Minnesota; <https://conservancy.umn.edu/handle/11299/210001>
2. Ideas with a system – design thinking. <https://job-wizards.com/en/design-thinking-buzzword-or-the-new-magic-formula/?gclid=CjwKCAiA8ov_BRAoEiwAOZogwarWgIndPIJqB2DKaaKZImxzxV-SyVrJSp4NqRKwurhp6yaJ2IUBchoCKr0QAvD_BwE>
3. Introduction to Design Thinking (2018). [https://experience.sap.com/skillup/ introduction-to-design-thinking/](https://experience.sap.com/skillup/%20introduction-to-design-thinking/)
4. Kuriloff, Gabriel. (2019). From the Ground Up: The Challenges and Possibilities of Using Design Thinking to Develop Adult Autonomy in One School. University of Pennsylvania; [https://search.proquest.com/docview /2296699917/?pq-origsite=primo](https://search.proquest.com/docview%20/2296699917/?pq-origsite=primo)
5. Kotova Nina Sergeyevna; Mytusova Olga Anatolyevna (2018) "Design-thinking" as a new approach to teaching management in master's degree. State and municipal administration, Vol. 2018/3, no. 3, pp. 47–51, <https://doaj.org/article/e75a26d0e7714b4f83126b8a26920606>
6. MURAL is a digital workspace for visual collaboration (2020). <https://www.mural.co/>
7. Nguyen, Bao Marianna. (2016). Design Thinking in Startups. Daktaro disertacija. University of Oslo, [https://www.duo.uio.no/bitstream/handle /10852/51905/design-thinking-in-startups-by-bao-marianna-nguyen. pdf?sequence=1&isAllowed=y](https://www.duo.uio.no/bitstream/handle%20/10852/51905/design-thinking-in-startups-by-bao-marianna-nguyen.%20pdf?sequence=1&isAllowed=y)
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**ADDITIONAL SOURCES**

1. TSATU University e-learning course [http://nip.tsatu.edu.ua/course/view.php.id=2](http://nip.tsatu.edu.ua/course/view.php?id=2)
2. TSATU library, 18 B. Khmelnytskogo Avenue Melitopol, Ukraine
3. M.Iu. Lermontov city TSATU, 1 Peremogy Square Melitopol, Ukraine
4. Internet:
* http: // [www.bizpress.ws](http://www.bizpress.ws)
* http: // [www.cima.ru](http://www.cima.ru)
* http: // [www.madein.dp.ua](http://www.madein.dp.ua)
* http: // [www.management.com.ua](http://www.management.com.ua)
1. [http://nip.tsatu.edu.ua/course/view.php.id=2](http://nip.tsatu.edu.ua/course/view.php?id=2) [↑](#footnote-ref-0)