

# **Entrepreneurship in New Technologies and Similar Industries**

JOINT CURRICULA

Level: Vocational Education and Training

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on behalf of National Tourism Cluster “Bulgarian Guide”

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## **Objectives of the program**

The main objective of the program is to provide students with knowledge on the role and characteristics of entrepreneurship in new technologies and similar industries in modern conditions of operating enterprises. The gained knowledge is aimed primarily on small and medium sized enterprises which have the need for implementing modern technologies and entrepreneurship. Students will gain dominantly creative and practical knowledge.

## **Program outcomes**

After completing this program the students will be able to understand the importance of innovation and creativity in entrepreneurship, especially in using new technologies. They will gain knowledge about the different operations of entrepreneurship and the implementation of new technologies in the different phases and aspects of the process. Students will also comprehend the implications on various levels that can arise and will be able to identify the risks and how to overcome them in order to be successful. In this regard they will also learn how to determine the best outcomes of problem solving that arise from implementing new technology, more specifically through situational and SWOT - analysis and finding the best solutions. Legal ramifications are an important part of the gained knowledge that may arise and must be taken into account/An important part of the gained knowledge is the legal ramifications that may arise and that have to be taken into account. Additionally, to the theoretical knowledge, students will be in continuous contact with representatives of the business community who will share with students' best practices and examples from their personal experience regarding new technologies.

## **Content of the Program**

The program consists of a total of 10 topics with a total amount of 100 contact hours. The hours range from 7 to 15 per topic. These topics are examining different aspects of entrepreneurship and the implementation of new technologies in businesses' operations. All topics are logically connected and provide continuity of the gained knowledge. The information and knowledge that the students gain from this program will be tested. On the one hand, the students will have to fill in tests about each of the topics, at the end of the lectures. On the other hand, students will also have to make their own business plans regarding the use of new technologies in entrepreneurial work. Practical examples will be provided by renowned representatives of the business community. At the end, after the successful completion of the program, students will be given/receive certificates for participation with the grade that they will have from their activities in the program.

### **Involvement of the business professionals and experts in lectures**

An important part of this program is the involvement of professionals of the business community who have experience in entrepreneurship and the use of new technologies. In this way students will connect their gained theoretic and practical knowledge.

### **Duration and structure of the program**

The total number of lecturing hours is 100. Additional to the theoretical knowledge that the students will gain from most of the lectures, they will also be in contact with experts and professionals from various fields of entrepreneurship, regarding the different topics. The students will have a test for the theoretical knowledge, while they also must submit a business plan related to the use of new technologies in some business entity. During the lectures students will engage in group work and active participation. They will periodically have various homework assignments. The results from the test provide 60% of the final grade of the program, the business plan and its presentation represent 30%, while group work and homework activities will amount to 5% each.

| <b>Topics</b>  | <b>Number of contact hours</b> |
|--|--------------------------------|
| 1 Basics of Entrepreneurship   | <b>10</b>                      |
| 2 Importance of creativity and innovation in business' operations                              | <b>8</b>                       |
| 3 Innovative technologies and business   | <b>12</b>                      |
| 4 Use of technology in operations of modern entrepreneurs                                      | <b>15</b>                      |
| 5 Socio-cultural, economic and environmental implications in the use of using new technologies | <b>10</b>                      |
| 6 Process of implementing new technologies   | <b>10</b>                      |
| 7 Situational analysis and SWOT-analysis   | <b>8</b>                       |
| 8 Legal implications of using new technologies   | <b>10</b>                      |
| 9 Risk management for entrepreneurs regarding new technologies                                 | <b>10</b>                      |
| 10 Tourism best practices  | <b>7</b>                       |
| <b>TOTAL</b>   | <b>100</b>                     |

## **Topic description**

### **1 Basics of Entrepreneurship**

Students will get acquainted with entrepreneurship and the operations of modern businesses. Characteristics of modern entrepreneurs are needed in any managerial activity. This topic will provide the fundamentals of modern entrepreneurship.

### **2 Importance of creativity and innovation in business'operations**

This topic will provide students with the importance of using creative ways of conducting business. Creativity is closely related to innovation, especially to technological innovation. It will be stressed out that the human capital is the most important resource in any business, especially in small and medium sized enterprises. The human resources must be very motivated in order to implement their creativity in the business.

### **3 Innovative technologies and business**

This topic will introduce students with several modern types of technologies from different fields such as communication, transport, services, etc. In addition, different examples of using older technologies in a new and unusual way in executing business activities will be presented

### **4 Use of technology in operations of modern entrepreneurs**

This topic will analyze the process of entrepreneurship and the use of new technologies in different activities. More and more technologies replace human activities. It will be emphasized that technologies represent an important tool for entrepreneurs to widen their range of activities and capabilities. From this derives the need for entrepreneurs to acquire more technological skills in order to use most of their capabilities. Some of the technology – related skills and their characteristics that modern entrepreneurs must have in order to be competitive will be presented. Special emphasis will be put on automation technologies, virtual, augmented and mixed reality, social media, mobile applications.

### **5 Socio-cultural, economic and environmental implications of using new technologies**

This topic analyzes the different types of implications that arise from the implementation of new technologies. The implications can be positive and negative. The modern entrepreneur must understand what kind of repercussions the new

technologies will have in a social, cultural, economic and environmental sense. This is also closely related with the concept of sustainable development.

## **6 Process of implementing new technologies**

Implementation of new technologies in a business environment is never an easy task. This is a complex process with several phases. This topic examines the different types of phases and activities of the implementation process as well as their characteristics and implications. This is needed in order to have total control over the process that will result in a successful use of the new technologies in the operation of a business. There are different types of phases of this process but the 3 main ones are: Preparatory Phase, Implementation Phase, and Monitoring Phase.

## **7 Situational analysis and SWOT-analysis**

Every entrepreneur must understand the circumstances in which he operates in internal and external sense. This is a continuous process given the fact that every business entity goes through changes over time. It is more complex during implementation of new technologies in the operation phases of the entity. Therefore this topic will provide students with the insight in the different methods for environmental analysis. One of the most important analyses of this kind is the SWOT – analysis. This analysis is specifically technology – oriented.

## **8 Legal implications of using new technologies**

Innovation is always a problematic field, especially in the business environment. It is closely related to copyright infringement and/or patenting. New technologies do not include only the hardware but also eventual software. Namely, businesses operate in a global environment where different entities cooperate and compete. These companies can originate from different countries. That is why the legal implications of using new technologies are an important field that must be addressed. This topic examines the different domestic and international legal requirements that should be taken into account by the modern entrepreneur while conducting business activities.

## **9 Risk management for entrepreneurs regarding new technologies**

Various risks may occur when applying and implementing new technologies. Because of the wide range of technologies' influence on the environmental, social and economic sphere, the entrepreneur must understand the different types of risks that can appear inside, as well as outside of the enterprise. Furthermore, in order to obtain

sustainable development the entrepreneur must consider different threats that may occur on the technologies themselves. Most importantly is the use of computer programs and artificial intelligence that may analyze and even predict some business risks. The appropriate use of such technologies can represent an important tool in the hands of managers/entrepreneurs.

## **10 Tourism best practices**

Best practices in this field will include examples regarding the previously mentioned topics (topics). This will include both domestic and international positive cases of implementing new technologies.

### **Presenting the business plan**

The business plan that the students must create will also be presented individually. Students can then themselves propose a grade for the student who is presenting. The proposed grade will include assessment of the structure, creativity, details and presentation of the business plan. The plan must also be presented in front of at least two experts from the field of this program.

### **Certification**

If the students are successful in the realization of this program, they will be awarded a specially prepared certificate which will state the name of the program, period of conduct of the program, number of realized classes as well as the different topics (topics) that are included in the program.

### **Recommended literature**

Aghion, P., Blundell, R., Bloom, N., Griffith, R. and Howitt, P. - COMPETITION AND INNOVATION: AN INVERTED U RELATIONSHIP, 2005, Quarterly Journal of Economics, Vol. 120 No. 2, pp. 701-28, [https://www.ucl.ac.uk/~uctp39a/ABBGH\\_QJE\\_2005.pdf](https://www.ucl.ac.uk/~uctp39a/ABBGH_QJE_2005.pdf)

Baumol, W. J. - EDUCATION FOR INNOVATION: ENTREPRENEURIAL BREAKTHROUGHS VS CORPORATE INCREMENTAL IMPROVEMENTS, 2004, NBER Working Paper 10578, Cambridge, MA, <https://www.nber.org/chapters/c10806.pdf>

Begley, T.M., Tan, W.L. and Schoch, H. - POLITICO-ECONOMIC FACTORS ASSOCIATED WITH THE INTEREST IN STARTING A BUSINESS: A MULTI-COUNTRY STUDY, 2005, Entrepreneurship Theory and Practice, Vol. 29 No. 1, pp. 35-55, [https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=3420&context=lkcsb\\_research](https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=3420&context=lkcsb_research)

Blomstrom, M. Sjöholm, F. - TECHNOLOGY TRANSFER AND SPILLOVERS: DOES LOCAL PARTICIPATION WITH MULTINATIONALS MATTER?, 1998, NBER Working Paper 6816, Cambridge, MA, <https://www.nber.org/papers/w6816.pdf> .

Blomstrom, M. Sjöholm, F. - TECHNOLOGY TRANSFER AND SPILLOVERS: DOES LOCAL PARTICIPATION WITH MULTINATIONALS MATTER?, 1998, NBER Working Paper 6816, Cambridge, MA, <https://www.nber.org/papers/w6816.pdf> .

Cainelli, G., Evangelista, R. and Savona, M. - Innovation and Economic Performance in Services: a firm-level Analysis, 2006, researchgate, [https://www.researchgate.net/publication/5208577\\_Innovation\\_and\\_Economic\\_Performance\\_in\\_Services\\_a\\_firm-level\\_Analysis](https://www.researchgate.net/publication/5208577_Innovation_and_Economic_Performance_in_Services_a_firm-level_Analysis).

Chandler, G. and Hanks, S. - MARKET ATTRACTIVENESS, RESOURCE-BASED CAPABILITIES, VENTURE STRATEGIES AND VENTURE PERFORMANCE, *Journal of Small Business Management*, Vol. 12, No. 1, pp. 27-35.

David B. Audretsch - Innovation, growth and survival, 1995, *International Journal of Industrial Organization*, Vol. 13, pp. 441-57, <https://www.sciencedirect.com/science/article/pii/0167718795004998>

David B. Audretsch, - The entrepreneurial society, 2008, SpringerLink, <https://link.springer.com/article/10.1007/s10961-008-9101-3>

Iraj Hashi, Besnik A. Krasniqi - Entrepreneurship and SME growth: evidence from advanced and laggard transition economies, 2011, emeraldinsight, <https://www.emeraldinsight.com/doi/full/10.1108/1355255111158817>

Iraj Hashi, Besnik A. Krasniqi - Entrepreneurship and SME growth: evidence from advanced and laggard transition economies, 2011, emeraldinsight, <https://www.emeraldinsight.com/doi/full/10.1108/1355255111158817>

Iraj Hashi, Besnik A. Krasniqi - ENTREPRENEURSHIP AND SME GROWTH: EVIDENCE FROM ADVANCED AND LAGGARD TRANSITION ECONOMIES, 2011, emeraldinsight, <https://www.emeraldinsight.com/doi/full/10.1108/1355255111158817>

Lumpkin, T. and Dess, G. - CLARIFYING THE ENTREPRENEURIAL ORIENTATION CONSTRUCT AND LINKING IT TO PERFORMANCE, 1996 *Academy of Management Review*, Vol. 21 No. 1, pp. 135-72, <https://instruct.uwo.ca/business/bus020-mwf/PHD-4.pdf>

Peter J Buckley, INTERNATIONAL TECHNOLOGY TRANSFER BY SMALL AND MEDIUM-SIZED ENTERPRISES, 1997, *Small Business Economics*, Vol. 9, No. 1, pp. 67-78.

Romer, P.M. - ENDOGENOUS TECHNOLOGICAL CHANGE, 1991 *Journal of Political Economy*, Vol. 98, pp. 71-101, [http://web.stanford.edu/~klenow/Romer\\_1990.pdf](http://web.stanford.edu/~klenow/Romer_1990.pdf) .

Rothwell, R. - THE ROLE OF SMALL FIRMS IN TECHNOLOGICAL INNOVATION, 1986, in Curran, J., Stanworth, J. and Watkins, D. (Eds), The Survival of the Small Firm, Vol. 2, Gower Publishing Company, Aldershot.

Schiffer, M. and Weder, B., FIRM SIZE AND THE BUSINESS ENVIRONMENT: WORLDWIDE SURVEY RESULTS, 2001 Discussion Paper No. 4, International Finance Corporation, Washington, DC, <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.203.4798&rep=rep1&type=pdf>

World Bank, THE BUSINESS ENVIRONMENT ENTERPRISE PERFORMANCE SURVEY (BEEPS), 2005, World Bank, Washington DC