

|                                      |                |
|--------------------------------------|----------------|
| <b>1. Course (module) name</b>       | <b>2. Code</b> |
| Innovation Management and Creativity |                |

|                        |                       |
|------------------------|-----------------------|
| <b>3. Lecturer (s)</b> | <b>4. Division(s)</b> |
|                        |                       |

|                            |                                  |                                |
|----------------------------|----------------------------------|--------------------------------|
| <b>5. Cycle of studies</b> | <b>6. Course (module) level</b>  | <b>7. Course (module) type</b> |
| First                      | Course is not divided into parts | Elective                       |

|                         |                           |                                  |
|-------------------------|---------------------------|----------------------------------|
| <b>8. Delivery form</b> | <b>9. Delivery period</b> | <b>10. Delivery language (s)</b> |
| Full-time               | Semester 5                | English                          |

| <b>11. Requirements for students</b> |  |
|--------------------------------------|--|
| <b>Preliminary requirements:</b>     | <b>Associated requirements (if any):</b> |
| -                                    | -  |

|   |   |                               |                                   |
|---|---|-------------------------------|-----------------------------------|
| <b>12. Scope of course (module) in ECTS credits</b> | <b>13. Full workload of a student (hours)</b> | <b>14. Contact work hours</b> | <b>15. Independent work hours</b> |
| 6   | 140   | 40                            | 120                               |

| <b>16. Course (module) purpose: competences developer by the course programme</b>   |
|---|
| The purpose of the course is to introduce students to the innovation, creativity and technology concepts, technology management and technological innovation concepts and theories, to provide students with theoretical knowledge and practical skills, necessary to understand and apply innovation strategies and management models and methods, to understand technology commercialization process and its importance to innovative economy and entrepreneurship. |

| <b>17. Relation of the course targets with the expected results of studies and evaluation methods of studies and student achievement</b>   |  |   |   |
|--|--|---|---|
| <b>Results (targets) of the course</b>   | <b>Results of the course</b>   | <b>Methods of studies</b>   | <b>Evaluation methods of academic achievements</b>  |
| Students have to gain the ability to identify problems independently, observe new opportunities and develop new products and services that provide added value to the aviation sector. | Students will understand technological development theories and the main concepts, will gain knowledge about technological innovation and technology development trends.             | Lectures, analysis of literature, active learning methods (discussions, brainstorm, etc.)   | Written exam.                                       |
|  | Students will be able to understand technological innovation strategies and management processes, understand their impact on state economy and growth.                               | Lectures, analysis of literature, active learning methods (discussions, brainstorm, etc.), individual assignments, presentations. | Evaluation of individual assignments, written exam. |
|  | Students will be able to apply technological innovation management and commercialization models and methods and make informed decisions while working in different business sectors. | Analysis of information, active learning methods (discussions, brainstorm, etc.), team work, group project.                       | Evaluation of group project.                        |

| 18. Course content  |  |               |           |           |                 |          |                  |                                       |  |  |
|---|--|---------------|-----------|-----------|-----------------|----------|------------------|---------------------------------------|--|--|
| Topics  | Contact work hours and learning method |               |           |           |                 |          |                  | Time of independent studies and tasks |  |  |
|   | Lectures                               | Consultations | Seminars  | Exercises | Laboratory work | Practice | All contact work | Independent work                      | Tasks  |  |
| 1. Technology, innovation and creativity: analysis of the main concepts | 2                                      | -             | 4         | -         | -               | -        | 6                | 20                                    | Literature analysis, additional information analysis, preparation for discussions, analysis of individual and group assignments. |  |
| 2. Technology transfer: science and business cooperation                | 3                                      | -             | 4         | -         | -               | -        | 6                | 20                                    | Literature analysis, additional information analysis, preparation for discussions, work on individual and group assignments.     |  |
| 3. Understanding technological innovation in business                   | 2                                      | -             | 4         | -         | -               | -        | 4                | 10                                    | Literature analysis, additional information analysis, preparation for discussions, work on individual and group assignments.     |  |
| 4. Innovation strategies and trends                                     | 3                                      | -             | 4         | -         | -               | -        | 7                | 20                                    | Literature analysis, additional information analysis, preparation for discussions, work on individual and group assignments.     |  |
| 5. Innovation management: models and methods                            | 2                                      | -             | 2         | -         | -               | -        | 6                | 20                                    | Literature analysis, additional information analysis, preparation for discussions, work on individual and group assignments.     |  |
| 6. Technological product development                                    | 2                                      | -             | 4         | -         | -               | -        | 6                | 20                                    | Literature analysis, additional information analysis, preparation for discussions, work on individual and group assignments.     |  |
| 7. Overview of innovation and knowledge economy                         | 2                                      | -             | 2         | -         | -               | -        | 5                | 10                                    | Literature analysis, additional information analysis, preparation for discussions, work on individual and group assignments.     |  |
| <b>Total</b>  | <b>16</b>                              | <b>-</b>      | <b>14</b> | <b>-</b>  | <b>-</b>        | <b>-</b> | <b>40</b>        | <b>100</b>                            |  |  |

| <b>19. Strategy and criteria of student assessment</b> |                 |                      |   |
|--|-----------------|----------------------|---|
| <b>Assessment method</b>                               | <b>Per cent</b> | <b>Delivery time</b> | <b>Evaluation criteria</b>  |
| Group project  | 25              | Semester             | Relevance of the group project topic, understanding of the topic and ability to analyse and understand technological innovation strategies and management processes, ability to demonstrate comprehensive knowledge, extensive and appropriate bibliography list, originality, creativity and communication skills.<br><b>10-9:</b> Excellent knowledge and skills.<br><b>8-7:</b> Good knowledge and skills.<br><b>6-5:</b> Average knowledge and skills.<br><b>4-0:</b> Minimal requirements are not fulfilled. |
| Individual assignment                                  | 20              | Semester             | Comprehensive understanding of the topic, ability to identify and analyse problems and explain them to colleagues, ability to find and use additional information sources, clear and logical presentation, communication skills.<br><b>10-9:</b> Excellent knowledge and skills.<br><b>8-7:</b> Good knowledge and skills.<br><b>6-5:</b> Average knowledge and skills.<br><b>4-0:</b> Minimal requirements are not fulfilled.  |
| Exam   | 55              | Exam Session         | Ability to demonstrate knowledge and comprehensive understanding of the question.<br><b>10-9:</b> Excellent knowledge and skills.<br><b>8-7:</b> Good knowledge and skills.<br><b>6-5:</b> Average knowledge and skills.<br><b>4-0:</b> Minimal requirements are not fulfilled.   |

| <b>20. Sources of study, literature*</b>  |
|---|
| <b>Mandatory sources of study, literature</b>   |
| <ol style="list-style-type: none"> <li>1. Shilling M. A. Strategic management of technological innovation. Boston: McGraw Hill, 2005.</li> <li>2. Strategy, Innovation and Change: Challenges for Management. Galavan R, Murray J., Markide C (eds.). Oxford; New York: Oxford University Press, 2008.</li> <li>3. O'Sullivan D, Dooley L. Applying innovation. Thousand Oaks; London: SAGE Publications, 2009.</li> <li>4. Rasmussen E., Moen Ø., Gulbrandsen M. Initiatives to promote commercialization of university knowledge, in <i>Technovation</i>, Vol. 26, Issue 4, April 2006, p. 518-533.</li> <li>5. Lee J., Win H. N. Technology transfer between university research centers and industry in Singapore, in <i>Technovation</i>, Vol. 24, Issue 5, May 2004, p. 433-442.</li> </ol>   |
| <b>Additional sources of study, literature</b>  |
| <ol style="list-style-type: none"> <li>1. The Innovation Handbook. Jolly A. (ed.). London; Philadelphia: Kogan Page, 2008.</li> <li>2. Bessant J., Tidd J. Innovation and Entrepreneurship. Chichester: John Wiley, 2007.</li> <li>3. Innis R. E. The Meanings of Technology, in <i>Techné: Research in Philosophy and Technology</i>, Volume 7:1, Fall 2003, p. 91-110. <a href="http://scholar.lib.vt.edu/ejournals/SPT/v7n1/pdf/innis.pdf">http://scholar.lib.vt.edu/ejournals/SPT/v7n1/pdf/innis.pdf</a></li> <li>4. Fernandes A. S.C., Melo Mendes P. Technology as Culture and Embodied Knowledge, in <i>European Journal of Engineering Education</i>, Vol. 28, Issue 2, June 2003, p. p. 151 – 160.</li> <li>5. Bozeman B. Technology transfer and public policy: a review of research and theory, in <i>Research Policy</i>, Vol. 29, Issue 4-5, April 2000, p. 627-655.</li> <li>6. Debackere K., Veugelers R. The role of academic technology transfer organizations in improving industry science links, in <i>Research Policy</i>, Vol. 34, Issue 3, April 2005, p. 321-342.</li> <li>7. Christensen C. M. Exploring the limits of the technology S-curve. Part I: Component technologies, in <i>Production and Operations Management</i>, 1(4), 1992, p. p. 334-357.</li> <li>8. Etzkowitz H., Webster A., Gebhardt C., Cantisano Terra B. R. The future of the university and the university of the future: evolution of ivory tower to entrepreneurial paradigm, in <i>Research Policy</i>, Volume 29, Issue 2, February</li> </ol> |

2000, p. 313-330.

*\*List of sources and literature is subject to change and updates during the course.*