COURSE DESCRIPTION CARD

<table>
<tr><td colspan="10">Bialystok University of Technology
Faculty of Engineering Management</td></tr>
<tr><td>Field of study</td><td colspan="6">Management</td><td>Degree level and programme type</td><td>first degree/ second degree</td></tr>
<tr><td>Specialisation/ diploma path</td><td colspan="6">-</td><td>Study profile</td><td>-</td></tr>
<tr><td rowspan="2">Course name</td><td colspan="6" rowspan="2">Technology management</td><td>Course code</td><td>IS-FM-00106S</td></tr>
<tr><td>Course type</td><td>elective</td></tr>
<tr><td rowspan="2">Forms and number of hours of educational activities</td><td>L</td><td>C</td><td>LC</td><td>P</td><td>SW</td><td>FW</td><td>S</td><td>Semester</td><td>summer</td></tr>
<tr><td></td><td>30</td><td></td><td></td><td></td><td></td><td></td><td>No. of ECTS credits</td><td>6</td></tr>
<tr><td>Entry requirements</td><td colspan="9">—</td></tr>
<tr><td>Course objectives</td><td colspan="9">The aim of the course is to familiarize students with the concept of technology, selected classifications and methods of analysis, assessment and technology selection; shaping the ability to use selected methods of technology analysis and stimulating creativity in the field of designing the development process of selected technologies.</td></tr>
<tr><td>Course content</td><td colspan="9">Definitions and selected classifications of technologies. The idea of technology management. Selected methods of technology assessment. Technology development concepts. Assessment of the technological potential of the organization. Strategic management and process management of the organization and technologies. Modelling of the technology management process. Technology transfer strategies and models. Technological knowledge management. The concept of architectural innovations.</td></tr>
<tr><td>Teaching methods</td><td colspan="9">lecture, subject exercises, case studies, discussion</td></tr>
<tr><td>Assessment method</td><td colspan="9">presentation on chosen aspects related to the main subject, evaluation of case studies, evaluation of work in the classroom, evaluation of homework</td></tr>
<tr><td>Symbol of learning outcome</td><td colspan="7">Learning outcomes</td><td colspan="2">Reference to the learning outcomes for the field of study</td></tr>
<tr><td></td><td colspan="7">Knowledge: the graduate knows and understands</td><td colspan="2">-</td></tr>
<tr><td>LO1</td><td colspan="7">the definitions of technology and methods of technology management</td><td colspan="2">-</td></tr>
<tr><td>LO2</td><td colspan="7">the principles of designing technology development</td><td colspan="2">-</td></tr>
<tr><td></td><td colspan="7">Skills: the graduate is able to</td><td colspan="2">-</td></tr>
<tr><td>LO3</td><td colspan="7">choose and apply appropriate tools and methods of technology management</td><td colspan="2">-</td></tr>
<tr><td>LO4</td><td colspan="7">select appropriate analytical methods to solve engineering problems</td><td colspan="2">-</td></tr>
<tr><td></td><td colspan="7">Social competence: the graduate is ready to</td><td colspan="2">-</td></tr>
<tr><td>LO5</td><td colspan="7">communicate freely with the scientific and business community</td><td colspan="2">-</td></tr>
<tr><td>LO6</td><td colspan="7">work in an interdisciplinary and international team in solving engineering problems</td><td colspan="2">-</td></tr>
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Symbol of learning outcome	Methods of assessing the learning outcomes	Type of tuition during which the outcome is assessed
LO1	presentation, evaluation of case studies, evaluation of work in the classroom, evaluation of homework	C
LO2	presentation, evaluation of case studies, evaluation of work in the classroom, evaluation of homework	C
LO3	presentation, evaluation of case studies, evaluation of work in the classroom, evaluation of homework	C
LO4	presentation, evaluation of case studies, evaluation of work in the classroom, evaluation of homework	C
LO5	presentation, evaluation of case studies, evaluation of work in the classroom, evaluation of homework	C
LO6	presentation, evaluation of case studies, evaluation of work in the classroom, evaluation of homework	C

Student workload (in hours)		No. of hours
Calculation	participation in classes	30
	preparation for classes	25
	work on homework's	35
	individual work on case studies	35
	team work on preparing a case studies	20
	consultations attendance	5
	TOTAL:	**150**

Quantitative indicators	HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation	**35**	**1,4**
Student workload – practical activities	**150**	**6**

Basic references	1. Cagnin C., Future-Oriented Technology Analysis: Strategic Intelligence for an Innovative, Economy Springer-Verlag, 2008. 2. Cetindamar D., Phaal R., Probert D., Technology management: activities and tools, Pelgrave Macmillan, 2010. 3. Porter A.L., Thomas Roper A., Cunningham S.W., Forecasting and Management of Technology. John Wiley & Sons, 2011. 4. Roper A.T. et al., Forecasting and Management of Technology, John Wiley & Sons, Inc., New York 2011.
Supplementary references	1. Haegeman H. i in., Quantitative and qualitative approaches in Future-oriented Technology Analysis (FTA): From combination to integration?, Technological Forecasting and Social Change 2013, 80 (2), s. 386–397. 2. Leonhard G., Technology vs. humanity: the coming clash between man and machine, London: Fast Future Publishing, 2016.

Organisational unit conducting the course	Department of Production Management	**Date of issuing the programme**
Author of the programme	Elżbieta Krawczyk-Dembicka, PhD, Eng.	02/28/2022

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work, S – seminar