GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

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|---|---|---|---|
| Subject name and code | Innovation Processes, PG_00040575 | | |
| Field of study | Engineering Management | | |
| Date of commencement of studies | October 2020 | Academic year of realisation of subject | 2021/2022 |
| Education level | first-cycle studies | Subject group | Obligatory subject group in the field of study<br>Subject group related to scientific research in the field of study |
| Mode of study | Full-time studies | Mode of delivery | at the university |
| Year of study | 2 | Language of instruction | Polish |
| Semester of study | 4 | ECTS credits | 2.0 |
| Learning profile | general academic profile | Assessment form | assessment |
| Conducting unit | Faculty of Management and Economics | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr hab. inż. Anna Lis | |
| | Teachers | dr hab. inż. Anna Lis | |

**Lesson types and methods of instruction**

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 15.0 | 0.0 | 0.0 | 15.0 | 0.0 | 30 |

E-learning hours included: 0.0

Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=22406
Adresy na platformie eNauczanie:

**Learning activity and number of study hours**

| Learning activity | Participation in didactic classes included in study plan | Participation in consultation hours | Self-study | SUM |
|---|---|---|---|---|
| Number of study hours | 30 | 6.0 | 14.0 | 50 |

**Subject objectives**

The aim of this course is to introduce students to topical issues in innovation management: in intra- and inter- firm contexts.

**Learning outcomes**

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| [K6_K03] initiates creative and entrepreneurial activities in the organization using the knowledge of engineering management | Inspires creative activities in the organization associated with the introduction of innovation in products, processes and organization | [SK5] Assessment of ability to solve problems that arise in practice |
| [K6_U04] forecasts phenomena and processes in the organisation, including technical and innovative processes | Can anticipate innovative and technical processes | [SU2] Assessment of ability to analyse information |
| [K6_W03] has a basic knowledge of the relationship both within the organisation and between the organisation and the environment | student uses the concepts of legal and ethical aspects of management and the protection of industrial property and copyright | [SW3] Assessment of knowledge contained in written work and projects |
| [K6_W06] has a basic knowledge of methods and tools for conducting research and analyses related to particular areas of the enterprise's operations and its environment | Has knowledge of how to diagnose the innovation capacity of firms | [SW1] Assessment of factual knowledge |

**Subject contents**

Lectures: Introduction; Definitions of innovation; Types of innovation; The innovation process; Diffusion of innovation; Models of innovation; Sources of innovation; Methods of generating ideas for innovations; Innovation strategies; Institutions supporting innovation; Final exam

Project: Opportunity identification, PEST analysis, Decoding of vision, Market analysis; New product idea; Brainstorming, Selection and evaluation, Blue Ocean Strategy, Looking across substitute industries and complementary product and service offerings, Morphological method, Balanced Scorecard, Innovation strategy, Presentations of projects

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="2">No requirements</td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Project</td><td>100.0%</td><td>50.0%</td></tr>
<tr><td>Written exam</td><td>60.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Pomykalski A.: Zarządzanie innowacjami. Wydawnictwo Naukowe PWN, Warszawa-Łódź, 2001;<br><br>Baruk J.: Zarządzanie wiedzą i innowacjami. Wydawnictwo Adam Marszałek, Toruń, 2009;<br><br>Niedzielski P. (i inni): Innowacyjność w działalności przedsiębiorstw. Kompedium wiedzy. Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin, 2007;<br><br>Jasiński A.H.: Innowacje i transfer techniki w procesie transformacji, Difin, Warszawa, 2006;<br><br>Wirkus M., Lis A. (red.), Zarządzanie projektami badawczo-rozwojowymi, Difin, Warszawa 2012,<br><br>Wirkus M., Lis A. (red.), Planowanie i rozwój nowych produktów, CeDeWu, Warszawa 2015,<br><br>Czyżewska, M.: Innowacje, start-upy, ryzyko: uwarunkowania rozwoju innowacyjnych przedsięwzięć. CeDeWu, 2020.</td></tr>
<tr><td>Supplementary literature</td><td>Santarek K. (red.): Transfer technologii z uczelni do biznesu. Tworzenie mechanizmów transferu technologii, PARP, Seria Innowacje, Warszawa, 2008;<br><br>Antoszkiewicz J. D: Innowacje w firmie: praktyczne metody wprowadzania zmian. Wydawnictwo POLTEXT, Warszawa, 2008;<br><br>Zarządzanie innowacją. Harvard Business Review, Wydawnictwo HELION, Gliwice, 2006;<br><br>Anthony S. D. (i inni): Przez innowację do wzrostu. Jak wprowadzić innowację przełomową. Wolters Kluwer Polska, Warszawa, 2010;<br><br>Malara, Z., Rutkowska, M.: Innowacje w dobie technologii IT: obszary, koncepcja, narzędzia. Oficyna Wydawnicza Politechniki Wrocławskiej, 2020;<br><br>Przybylska N.: Otwarte innowacje w polskich małych i średnich przedsiębiorstwach, Politechnika Gdańska, 2021.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">The narrow and broad approach in defining innovation.</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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