



Subject card

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|---|---|--|---------------------|-------------------------------------|--|------------|-----|
| Subject name and code | Global Digital Transformation , PG_00053753 | | | | | | |
| Field of study | Engineering Management | | | | | | |
| Date of commencement of studies | October 2021 | Academic year of realisation of subject | | | 2023/2024 | | |
| Education level | first-cycle studies | Subject group | | | Optional subject group 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 | 3 | Language of instruction | | | English The class will be taught in English | | |
| Semester of study | 5 | ECTS credits | | | 3.0 | | |
| Learning profile | general academic profile | Assessment form | | | assessment | | |
| Conducting unit | Department of Informatics in Management -> Faculty of Management and Economics | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | dr Nadzeya Sabatini | | | | |
| | Teachers | | dr Nadzeya Sabatini | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 15.0 | 0.0 | 15.0 | 0.0 | 0.0 | 30 |
| | E-learning hours included: 0.0 | | | | | | |
| 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 | | 5.0 | | 40.0 | 75 |
| Subject objectives | <p>The aim of the course is for the students to learn about global digital transformation as an enabler for social, economic and political development.</p> <p>After the course, the students should understand digital transformation:</p> <ol style="list-style-type: none">1) its defining features;2) its progress around the world;3) the benefits it can deliver and how to realize them;4) the threats it creates and how to respond to them;and5) development trends. | | | | | | |
| Learning outcomes | Course outcome | Subject outcome | | | Method of verification | | |
| | [K6_U08] analyses engineering and managerial solutions in decision-making processes, taking into account pro-quality and pro-environmental aspects, as well as safety of work processes | A student is able to observe and analyze the working of digital systems and their impact on decision processes. | | | [SU1] Assessment of task fulfilment | | |
| | [K6_W13] has a basic knowledge of the design, modelling and optimisation of technical processes and systems | A student understands how a combination of top-down design decisions and bottom-up organic growth shapes the behavior and impact of digital systems on society | | | [SW1] Assessment of factual knowledge | | |

| Subject contents | <p>BACKGROUND - What is digital transformation about?</p> <p>LANDSCAPE - What is the global adoption of digital transformation?</p> <p>INNOVATIONS - What are the cases of digital transformation?</p> <p>FEATURES - What features define digital transformation?</p> <p>BOUNTY - What benefits can digital transformation deliver?</p> <p>SPREAD - How unequal are the benefits of digital transformation?</p> <p>WINNERS - Who benefits most from digital transformation?</p> <p>IMPACT - What is the impact of the bounty and spread?</p> | | | | | | | | | | | |
|---------------------------------|---|---|--|--------------------------|-------------------|-------------------------------|---------------|-------|-------|-----------------------|-------|-------|
| Prerequisites and co-requisites | | | | | | | | | | | | |
| Assessment methods and criteria | <table border="1"> <thead> <tr> <th data-bbox="454 786 794 815">Subject passing criteria</th> <th data-bbox="799 786 1139 815">Passing threshold</th> <th data-bbox="1144 786 1482 815">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="454 822 794 851">Group project</td> <td data-bbox="799 822 1139 851">60.0%</td> <td data-bbox="1144 822 1482 851">60.0%</td> </tr> <tr> <td data-bbox="454 857 794 887">Individual assessment</td> <td data-bbox="799 857 1139 887">60.0%</td> <td data-bbox="1144 857 1482 887">40.0%</td> </tr> </tbody> </table> | | | Subject passing criteria | Passing threshold | Percentage of the final grade | Group project | 60.0% | 60.0% | Individual assessment | 60.0% | 40.0% |
| Subject passing criteria | Passing threshold | Percentage of the final grade | | | | | | | | | | |
| Group project | 60.0% | 60.0% | | | | | | | | | | |
| Individual assessment | 60.0% | 40.0% | | | | | | | | | | |
| Recommended reading | Basic literature | <p>1. E. Brynjolfsson and A. McAfee, The Second Machine Age, 2016</p> <p>2. B. Harris. Digital transformation the nextsteps. A business guide to digital change management, 2016</p> | | | | | | | | | | |
| | Supplementary literature | <p>A. McAfee and E. Brynjolfsson, Machine, Platform, Crowd, 2017</p> <p>T. M. Siebel, Digital Transformation, 2019</p> <p>B. Boorsma, A New Digital Deal, 2018</p> <p>K. Kelly, The Inevitable, 2016</p> <p>M. Raskino and G. Waller, Digital to the Core, 2015</p> | | | | | | | | | | |
| | eResources addresses | <p>Adresy na platformie eNauczenie:</p> <p>2023/2024 Global Digital Transformation-Online - Moodle ID: 31537 https://enauczenie.pg.edu.pl/moodle/course/view.php?id=31537</p> | | | | | | | | | | |

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| <p>Example issues/ example questions/ tasks being completed</p> | <ol style="list-style-type: none"> 1. What do society and business want from digitalization? 2. Does digitization have business value by itself? 3. Is society responding to technological change reactively or proactively? 4. What is the main difference between digitization and digitalization? 5. What is the main difference between digitalization and digital transformation? 6. Which elements could be applied to measure human social development? 7. What are the parallels between the first and the second machine age? 8. Why is access to technology not accurate to represent the usage of technology? 9. How is the international bandwidth calculated? 10. What types of digital skill can you describe? 11. Explain why inequalities in digital skills follow traditional inequality patterns. 12. What is the structure of the ICT sector? 13. Describe the revenue trends in the ICT sector. 14. Is digital technology already mature? 15. What benefits digital technology bring to us? 16. Can digital technology improve the physical world? How? 1 7. What are the negative consequences of digital transformation? 18. Which skills/abilities will be of value in the second machine age, which wont? |
| <p>Work placement</p> | <p>Not applicable</p> |