



Subject card

|   |   |   |                                     |            |  |         |     |
|---|---|---|-------------------------------------|------------|--|---------|-----|
| Subject name and code                       | Strategies for Information Systems, PG_00047776   |   |                                     |            |  |         |     |
| Field of study                              | Informatics   |   |                                     |            |  |         |     |
| Date of commencement of studies             | October 2026  | Academic year of realisation of subject                       |                                     |            | 2027/2028  |         |     |
| Education level                             | second-cycle studies  | Subject group   |                                     |            | Optional subject group<br>Subject group related to scientific research in the field of study |         |     |
| Mode of study                               | Part-time studies   | Mode of delivery  |                                     |            | at the university  |         |     |
| Year of study                               | 2   | Language of instruction                                       |                                     |            | Polish   |         |     |
| Semester of study                           | 3   | ECTS credits  |                                     |            | 4.0  |         |     |
| Learning profile                            | general academic profile  | Assessment form   |                                     |            | exam   |         |     |
| Conducting unit                             | Department of Software Engineering -> Faculty of Electronics Telecommunications and Informatics -> Faculties of Gdańsk University of Technology   |   |                                     |            |  |         |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor  | dr hab. inż. Agnieszka Landowska                              |                                     |            |  |         |     |
|   | Teachers  | dr hab. inż. Agnieszka Landowska<br>mgr Krzysztof Wyrzykowski |                                     |            |  |         |     |
| Lesson types                                | Lesson type   | Lecture   | Tutorial                            | Laboratory | Project  | Seminar | SUM |
|   | Number of study hours   | 12.0  | 0.0                                 | 0.0        | 15.0   | 0.0     | 27  |
|   | 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   | 27  | 10.0                                |            | 63.0   | 100     |     |
| Subject objectives                          | Purpose of the subject is to change student's perspective on IT projects and to show, how projects are managed and done from the perspective of its customers. Software acquisition and its relation to strategic planning is described as well as financial and time perspective is explored.  |   |                                     |            |  |         |     |
| Learning outcomes                           | Course outcome  | Subject outcome   |                                     |            | Method of verification   |         |     |
|   | [K7_U08] while identifying and formulating engineering tasks specifications and solving these tasks, can: - apply analytical, simulation and experimental methods, - notice their systemic and non-technical aspects, - make a preliminary economic assessment of suggested solutions and engineering work  | Student demonstrates use of Critical Success Factor method.   |                                     |            | [SU1] Assessment of task fulfilment  |         |     |
|   | [K7_U43] can apply information technologies in market economy and information society conditions as well as algorithmize and computerize cognitive and decision-making processes in other areas of knowledge  | Student defines IT strategy for organization.                 |                                     |            | [SU1] Assessment of task fulfilment  |         |     |
| Subject contents                            | Course content – lecture<br>1. Definition of information strategy, features of IT investments, problems in IT investments 2. Enterprise business strategy analysis - mission statement, goal hierarchy, market shares 3. Enterprise business strategy analysis - strategy type model, organization structure model 4. Strategic planning of IT (information technology) and IS (information systems) 5. Information strategy - case study 6. Classification of information systems 7. Enterprise information systems - MRP, ERP, SCM. CRM systems. 8. Financial analysis of IT investments 9. Making decisions about information systems. CSF method. 10. Software acquisition process - problems overview 11. Software acquisition rules-of-thumb 12. Requirements management 13. Software copyright problem 14. Configuration management in software acquisition 15. Schedule and risk management 16. Software maintenance problems |   |                                     |            |  |         |     |
| Prerequisites and co-requisites             | No requirements   |   |                                     |            |  |         |     |

| Assessment methods and criteria                                | Subject passing criteria | Passing threshold  | Percentage of the final grade |
|--|--------------------------|--|-------------------------------|
|  | Project                  | 50.0%  | 50.0%                         |
|  | Written exam             | 50.0%  | 50.0%                         |
| Recommended reading  | Basic literature         | <ol style="list-style-type: none"> <li>1. Carr Nicholas, IT doesn't matter, Harvard Business Review, May 2003.</li> <li>2. Gray Paul, Manager's Guide to Making Decisions about Information Systems, Wiley&amp;Sons, 2006</li> </ol>   |                               |
|  | Supplementary literature | <ol style="list-style-type: none"> <li>1. Kaplan, R. and Norton, D., "Using the balanced scorecard as a strategic management system", Harvard Business Review, January-February 1996a, pp. 75-85</li> <li>2. M.J. Earl, Management Strategies for Information Technology, Prentice Hall, 1989</li> <li>3. Parker, M., Strategic transformation and information technology, Prentice Hall, 1996 4 Wiseman, Information Economic: a practical approach to valuing information systems, Journal of Information Technology, 1992, 7</li> </ol> |                               |
|  | eResources addresses     |  |                               |
| Example issues/<br>example questions/<br>tasks being completed | IT strategy planning     |  |                               |
| Practical activities within the subject                        | Not applicable           |  |                               |

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