GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Enterprise Information Systems, PG_00053097		
Field of study	Data Engineering		
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	Polish
Semester of study	5	ECTS credits	5.0
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 Tomasz Janowski	
	Teachers	dr Tomasz Janowski	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	30.0	0.0	0.0	45

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	45	4.0	76.0	125

Subject objectives

The aim of the course is to make students aware about the principles and practice of enterprise information systems.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U08] can acquire and apply basic theoretical knowledge of economic sciences to analyse economic processes	A student is able to determine the effectiveness of information technology projects	[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools
[K6_W09] has basic knowledge of the nature of economic sciences and ways of its description with IT tools	A student is able to describe and classify information technologies and environments applied to build information systems A student is able to describe and classify concepts related to the management of the information technology projects	[SW1] Assessment of factual knowledge

Subject contents

LECTURES

- Introduction to information systems and digitization strategies
- Modelling business processes including methods and tools
- Enterprise information systems – Enterprise Resource Planning (ERP), Material Resource Planning (MRP), Product Lifecycle Management (PLM), Supply Chain Management (SCM), etc. including system characterization and application examples
- Information systems supporting Customer Relationships Management (CRM) including system characterization, potential for integration with ERP systems, and application examples
- Financial information systems, information systems for public administration and intelligent systems
- Technologies and platforms supporting information systems development, including Computer-Aided Software Engineering (CASE) and various open source and closed-source platforms such as J2EE and.NET
- Management of information technology projects, including management of project teams and management methods such as PMM, RUP, Agile, PRINCE2 and PMBoK good practices
- Measuring the effectiveness of information technology projects including definition of effectiveness, efficiency and efficacy, as well as quantitative, qualitative and mixed methods

LAB

- Enterprise and process description in terms of ERP system categories
- Realization of purchase and sale functions in ERP systems
- Planning in MRP systems
- Simulation of production systems
- Realization of an integrated customer order processing system in selected enterprises

Prerequisites and co-requisites

Foundations of informatics

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Laboratory reports	60.0%	20.0%
Project	60.0%	35.0%
Final test	60.0%	45.0%

Recommended reading

Basic literature	1. Durlik I.: Restrukturyzacja procesów gospodarczych - reengineering, teoria i praktyka. Wyd. „Placet", W-wa 1998 r. 2. Monnox A., J2EE. Podstawy programowania aplikacji korporacyjnych , Wydawnictwo: Helion, Listopad 2005 3. Orłowski C. Model rozmyty zarządzania przedsięwzięciami informatycznymi, Politechnika Gdańska, 2004 4. Orłowski C., Projektowanie hybrydowych systemów informatycznych do wspomagania zarządzania, Gdańsk, 1999 5. Phillips Joseph, Zarządzanie projektami IT, Wydawnictwo: One Press, 2004 6. Platt D., Podstawy Microsoft NET, Wydawnictwo: Read Me 2005 7. Sommerville I., Inżynieria oprogramowania, wydawnictwo: Wydawnictwa Naukowo-Techniczne, 2003 8. Szejko S.: (red.) Metody wytwarzania oprogramowania. Warszawa: Mikom 2002 9. Szyjewski Z.: Zarządzanie projektami informatycznymi. Metodyka tworzenia systemów informatycznych. Warszawa, Agencja Placet 2001
Supplementary literature	Own teaching materials for conducting exercises.
eResources addresses	

Example issues/ example questions/ tasks being completed

What is the difference between Enterprise Architecture and Service-Oriented Architecture?

How to create Model-Driven Architectures?

What methods exist to modify ERP system functions?

Work placement

Not applicable