DESCRIPTION OF THE OBJECT

FIELD OF STUDY	**Management**
SPECIALISATION	Logistics management
MODE OF STUDY	Full-time studies / Part-time studies
SEMESTER	4

Name of the subject	**Information technology in management**	
Hourly dimension of particular forms of classes	Full-time studies – 30 Part-time studies – 30	
• **lectures**	Full-time studies – 15 Part-time studies – 15	
• **other forms**	Full-time studies – 15 Part-time studies - 15	

Learning objectives:	– to discuss problems of computerisation of small and medium-sized companies and the basics of using information technology to support management – To present the principles of organisation of management systems – to present basics of evaluation, selection, implementation and exploitation of management systems in small and medium-sized enterprises – acquaintance with statutory assumptions related to the use of IT solutions in enterprises – acquiring skills of practical operation of multi-module ERP management systems and management of document flow in a company

Learning outcomes for the subject

Number	Learning outcomes, a student who has successfully completed the course will be able to:	Reference of learning outcomes for the programme	The reference to the learning outcomes for the area
EK_W01	Distinguish between management models in terms of their functionality and complexity	K_W08	P6S_WG
EK_W02	Identify the relevant legal acts governing the use of IT solutions for information processing in companies	K_W14 K_W18	P6S_WK
EK_U03	Analyse information flow in companies of different organisation by creating appropriate paths for transforming documents (workflow)	K_U03	P6S_UW
EK_U04	Collaborate in the creation of IT solutions in the transactional and analytical layer in small and medium sized companies	K_U05 K_U08	P6S_UW
EK_U05	Interpret information gathered in the system in the form of analyses, statements and reports	K_U09	P6S_UW

EK_K06	Have the ability to assess independently the usefulness of selected IT solutions from the point of view of their practical applications	K_K07	P6S_KO

Content number	Educational/ curricular content	Reference to learning outcomes for the subject
	Lectures	
T_01	The role of IT in organisational management, evaluation of information flow in small and medium-sized enterprises, principles of enterprise management with the use of IT, areas of computerisation of departments in small and medium-sized enterprises	EK_W01 EK_W02
T_02	Algorithmization of IT processes in management systems, the notion of algorithm, principles of constructing algorithms of basic management processes	EK_W01 EK_W02
T_03	Networks and their role in organisations, concepts of Internet, Intranet, Extranet, selection of an appropriate network topology for the organisation's needs, installation of management systems on a network platform, configuring rights in the network, company domains, rights of application users	EK_W01 EK_W02
T_04	Classification of management systems, models State Medical Rescue, ERP, APS, history of systems development, features of individual models, functions and objectives of systems, principles of their use in various organisations, Structures of management systems, modular construction, cooperation of system modules, workflow, analysis of information flow in an organisation, link between system functionalities and activity profile	EK_W01 EK_W02
T_05	Legal conditions related to the operation of management systems, Accounting Act, Copyright Act, Personal Data Protection Act, Health and Safety at Work Regulations, Data archiving principles and archiving instructions, archiving equipment, management systems and the European Union	EK_W01 EK_W02
T_06	Implementation of system solutions, system selection, assessment and analysis of needs in small and medium-sized enterprises, documentation of implementation processes, principles of work of implementation teams, implementation errors and how to avoid them	EK_W01 EK_W02
T_07	Database technologies and data warehouse construction, characteristics of a data warehouse, types of collected information, concepts of facts, descriptions, aggregates and metadata in data warehouses, relations between facts and descriptions, organization of management system database, organization of tables, halves, properties, indexation of tables, relations between tables, principles of transactional processing and analytical processing of data in data warehouses	EK_W01 EK_W02
	Exercises	
T_08	General construction of ERP-class systems, configuring system components, company configurations - databases, program and job	EK_U03 EK_U04

	configurations, operator privileges, system dictionaries, program interface, working on many windows	EK_U05 EK_K06
T_09	Practical operation of the management system, conversion of documents in the processes related to the operation of the sales module in a test company, issuing and editing of documents, delivery and order logistics, warehouse management, operation of the CRM system	EK_U03 EK_U04 EK_U05 EK_K06
T_10	Practical operation of the management system, conversion of documents in the processes related to the operation of the accounting module, operation of full accounting, configuration of a test company in accordance with the Accounting Act, posting of documents, posting schedules, accounting reporting, statements, declarations, fixed asset management	EK_U03 EK_U04 EK_U05 EK_K06
T_11	Practical operation of the management system, conversion of documents in the processes related to the operation of the HR and payroll module, human resources management, principles for the creation of payrolls, configuration of payroll elements, editing data related to the management of health and safety processes	EK_U03 EK_U04 EK_U05 EK_K06
T_12	Practical operation of the management system, operation of cash/banking modules, clearing, settlements, payments, debt collection, operation of multi-currency settlements, operation of exchange rates, deliveries and sales to EU customers and suppliers, internal invoices	EK_U03 EK_U04 EK_U05 EK_K06
T_13	Tool functions of ERP systems, management from the system administrator level, allocation of rights, introduction of prohibitions, security of data processing, creation of archive copies, data restoration, control of database coherence, information search, creation and management of filters	EK_U03 EK_U04 EK_U05 EK_K06
T_14	Reporting, transactional analysis, practical use of analysis panel, contextual analysis, use of remote data access for analytical processing, basics of SQL server management, data analysis using Excel, data conversion between systems	EK_U03 EK_U04 EK_U05 EK_K06

Methods and forms of teaching	**Educational and curricular content**
Lecture with multimedia presentation of selected issues	
Conversation lecture	
Problem-based lecture	
Informative lecture	T_01 – T_07
Discussion	
Working with text	
Case study method	
Problem-based learning	
Didactic/simulation game	
Exercise method	T_08 – T_14
Workshop method	
Project method	
Multimedia presentation	

Audio and/or video demonstrations	
Activation methods (e.g. brainstorming, SWOT analysis technique, decision tree technique, „snowball" method, constructing „mind maps")	
Other (which ones?) - ...	
…	

Evaluation criteria in relation to particular learning outcomes				
Learning outcome	**For assessment 2**	**For assessment 3**	**For assessment 4**	**For assessment 5**
EK_W01	The student is not able to discuss models of management systems and to determine their basic features.	Students will be able to discuss models of management systems and determine their basic features.	The student is not only able to discuss models of management systems and determine their basic assumptions and functionalities, but is also able to indicate their essential features and differences between them	The student is not only able to discuss models of management systems and determine their basic assumptions and functionalities, but is also able to indicate their essential features as well as benefits from their use in organisations with a diversified model of activity
EK_W02	The student is not able to indicate legal acts whose content is related to the use of information technology in the management process	Students will be able to discuss legal acts related to the computerisation of organisations and give examples of their use when applying information technology in the management process.	Students will not only be able to discuss legal acts related to computerisation of organisations, but they will also be able to discuss the content of these acts relevant for managing a company using information technology	The student is not only able to indicate relevant legal acts related to organisational informatisation, but he/she is also able to interpret the content of these acts in the context of managing a company with the use of IT technologies and is able to associate legal acts with the properly realised notion of workflow in a company
EK_U03	The student is not able to discuss basic documents edited in particular modules of the ERP system.	The student is able to discuss the basic documents involved in information processing in a test company, he/she is also able to discuss the basics of configuring management systems	The student is not only able to make an independent analysis of the document flow in a test company, but is also able to link appropriate modules of the management system with company documents, he/she is also able to discuss elements of the management system configuration	The student is not only able to make an independent analysis of the document flow in a test company, but is also able to select appropriate modules of a management system to realise a fully existing document flow, and is also able to carry out basic configuration activities in the management system
EK_U04	The student is unable to discuss the principles of using SQL server data to create analyses	The student is able to create an analysis in Excel from the data provided	The student is not only able to discuss the principles of retrieving data from SQL Server, but is able to use the provided data to create his own analyses in Excel	The student is not only able to independently download information from a data warehouse, but also discusses the principles of SQL server management and is able to use the downloaded

				data to create his own analyses in Excel
EK_U05	The student is not able to use the analyses included in the management system and is not able to interpret them	The student is able to use the analyses included in the management system and interpret their results	The student is not only able to use the analyses contained in the management system, but is also able to create company reports based on them	The student is not only able to use the analyses contained in the management system to evaluate the management process in the company, but is also able to interpret them properly in order to create statements and reports
EK_K06	The student does not have the ability to independently assess the correctness of selected IT solutions	The student has the ability to independently assess the correctness of selected IT solutions	The student is able to independently evaluate the correctness of selected IT solutions and express an assessment of the benefits of its use	The student not only has the ability to independently assess the validity of selected IT solutions, but also has the ability to perceive the relationship between the choice of a system and the benefits of its practical use

Verification of learning outcomes	**EK symbols for the module/subject**					
	W01	W02	U03	U04	U05	K06
Written examination	X	X	X	X	X	X
Oral examination						
Written credit	X	X	X	X	X	X
Oral credit						
Written colloquium						
Oral colloquium						
Test						
Project						
Written work						
Report						
Multimedia presentation						
Work during exercise	X	X	X	X	X	X
Other (which?) -						

Hourly teaching load and student workload	Full-time studies	Part-time studies
1. Lectures (joint participation of academics and students)	10	8
2. Other forms (joint participation of academic staff and students)	20	10
3. Consultation with the teacher	10	10
Total 1+2+3	**40**	**28**
4. Internships (carried out by students on their own)	—	—
5. Student's own work (including homework and project work, preparation for a credit/exam)	35	47

Total 4+5	**35**	**47**
SUMMARY 1+2+3+4+5	**75**	**75**
Total ECTS credits according to the study plan	**3**	

Reference literature	– Mazurek Krzysztof, *Zastosowanie technik informatycznych w zarządzaniu*, Skrypt WSHiU, 2010. – Januszewski Arkadiusz, *Funkcjonalność informatycznych systemów zarządzania*, T.1, Wydawnictwo Naukowe PWN, 2008. – Januszewski Arkadiusz, *Funkcjonalność informatycznych systemów zarządzania*, T.2, Wydawnictwo Naukowe PWN, 2008.

Complementary literature	– *- Documentation of Comarch ERPO Optim program in electronic form (PDF files)*
	– *- Management systems implementation materials (as PDF files)*
	– *Selected legislation*
	  – *Accounting Act,*
	  – *Data Protection Act,*
	  – *- Copyright Act,*
	  – *Ordinance of the Minister of Labour and Social Policy on occupational safety and health (in PDF format)*
	– *Slide presentations used during the lectures (as PDF documents)*
	– *Modern management. Comarch ERP magazines - available in electronic form at www.NZ.comarch.pl (all supplementary materials available for students via self-download from FTP server)*