University of Gdańsk

Subject card

Subject name and code	Information Systems in Accounting (including ERP), PG_00178543						
Field of study	Finance and Accounting						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2028/2029		
Education level	Bachelor's 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		7.0		
Learning profile	academic		Assessment form		exam		
Conducting unit	Department of Accounting -> Faculty of Management -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Beata Zackiewicz-Brunke				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	30.0	15.0	0.0	0.0	75
	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	75		4.0		96.0	175

Subject objectives	1. Bookkeeping with the use of information technologies and computer systems A. Ability to identify and describe the main economic processes in the enterprise B. Ability to determine the role of information in the management of the organization and to indicate the basic information needs of the company C. Ability to determine the place and role of the accounting IT subsystem in the integrated IT system supporting the management of the organization. D. Bookkeeping on general ledger accounts and subsidiary ledger accounts of economic operations related to: a) income, outflows and consumption (depreciation write-offs) of tangible, intangible and legal assets, b) accounting for the purchase of materials and goods using the actual purchase prices or the inventory prices, c) receivables and payables, d) turnover of monetary assets, e) accruals and deferred income, f) equity, including basic, supplementary and reserve funds, including capital share, reserves and provisions, g) the classification and presentation of income and gains, costs and losses in the profit and loss account, prepared on a line-by-line and comparative basis, h) the recognition of production costs by nature and function and their allocation to the cost of finished goods and work in progress, i) recognition of selling and general administrative expenses, j) the classification and recognition of operations relating to the sale of goods, merchandise and services, k) other operating income and expenses, l) financial operations, m) calculation of the financial result by the statistical method and determination of the financial result by the accounting method. E. Preparation of a statement of turnover and balances of the general ledger accounts and a statement of the balances of the subsidiary accounts. F. Correcting accounting errors. G. Evaluating the accuracy of the various elements of the accounts using information systems. H. Determining the location of accounting records and the storage of sets of accounting records, including ledgers, accounting evidence and financial statements. **2. Internal control** A. Use of statistical methods in sampling for internal control and audit. B. The use of methods and techniques to control and audit specific areas of the entity's operations and components owned by the entity. C. Analysis of risks and opportunities of the organisation using a risk management system and risk management advice. D. Use of internal control and internal audit in the management process. E. Analysis, evaluation and design of the structure and operation of internal control to ensure the integrity and correctness of the accounts and the proper quality of the information reported in financial and other reports. F. Analysis of the fit between the basic IT control tools and the application control tools used.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[FiRL3_U04] Is able—from the perspective of finance and accounting—to correctly select and properly apply methods and tools from the fields of management and quality sciences, economics, and finance to analyse and forecast economic processes and evaluate economic phenomena	The student points out the differences between the types of information systems. The student selects statistical methods and selects samples for the purposes of internal audit control. The student conducts risk analysis using a variety of tools.	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[FiRL3_U12] Can utilize IT tools to enhance finance and accounting tasks	The student carries out accounting processes in a selected IT system The student develops, analyzes and interprets source data using information systems.	[SU2] presentation/project/paper/ report [SU5] implementation of a problem task
[FiRL3_U02] Can identify, analyze or design adequate solutions to problems in finance and accounting	The student is able to design basic flows in an integrated IT system. The student designs elements of the internal control system in the unit in the area of finance and accounting in accordance with the risk analysis.	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[FiRL3_W10] Knows and understands to an advanced degree the fundamental dilemmas of modern civilization from the perspectives of finance and accounting	The student gives examples of dilemmas of modern civilization from the point of view of the application of information systems and internal control in finance and accounting	[SW4] test/exam - oral or written
[FiRL3_W06] Knows and understands, to an advanced degree, the objectives, essence, nature and interrelationships of financial processes, ways of recording them, and the principles of rational decision-making and implementation of changes in this area	The student indicates connections within the accounting information system and the effects of entering data into the information system. The student identifies the interconnections of financial processes, the ways of recording and controlling them, and understands the principles of rational decision-making and implementation of changes in this area.	[SW4] test/exam - oral or written

Subject contents

1. Bookkeeping using information technology and computer systems
1.1 Economic processes in the company
1.2 The role of information in business management
1.3 Information needs of the company
1.4 Typology of management support information systems
1.5. Place of the accounting subsystem in the integrated management system supporting management
1.6. The subjective scope of the obligation to keep accounts.
1.7. Obligatory elements of accounts maintained using information technology and computer systems:
a) journal (functions and principles of keeping by different accounting techniques),
b) general ledger accounts (principle of double entry, functions of the general ledger accounts, principles and time limits for opening, maintaining and closing the general ledger accounts in the various accounting techniques),
c) subsidiary accounts (purposes, forms and scope of subsidiary accounts, ways of keeping subsidiary accounts, rules and time limits for opening, keeping and closing subsidiary accounts in the various accounting techniques),
d) the summary of turnover and balances of the general ledger accounts and the summary of balances of auxiliary ledger accounts,
e) principles of reconciliation of accounts,
f) correction of accounting errors.
1.8. Criteria for evaluating accounting information systems:
a) the way in which the basic principles of double-entry bookkeeping are implemented,
b) compliance with legal provisions,
c) adaptation of information functions to the needs of the entity.
1.9. Criteria for considering accounting ledger to be kept reliably, error-free, verifiable and up-to-date.
1.10. The place where the accounting ledger is kept and the rules for keeping the accounting books.
1.11. Responsibility for bookkeeping.
2. Internal control
2.1. Internal control system:
a) the concept, purpose and objectives of internal control and internal audit,
b) subject matter, scope and stages of the control process and its organisation,
c) methods, techniques and procedures of internal control and internal audit, including statistical methods in statistical methods in control and audit,
d) internal control and business risk and uncertainty
e) audit findings and follow-up
f) internal control and internal audit as management support instruments.

2.2. The operation of internal control and the quality of the accounting books and financial statements:
a) the relationship of internal control to accounting,
b) the control functions of accounting and financial reporting,
c) elements and instruments of internal control to ensure the integrity of accounting and financial reporting,
d) internal control in an information technology environment.

Prerequisites and co-requisites	The student should have knowledge and skills in financial accounting and cost accounting	
Assessment methods and criteria		

Subject passing criteria	Passing threshold	Percentage of the final grade
The condition for taking the final exam is to obtain a positive grade for the final work (project).	51.0%	0.0%
Written examination with problem tasks and test questions. The detailed conditions are determined by the lecturer at the beginning of the semester.	51.0%	100.0%

Recommended reading	Basic literature	A.1. wykorzystywana podczas zajęć 1. Autorskie materiały dydaktyczne prowadzących zajęcia 2. https://przemyslawlech.academia.edu/- teaching materials 3. Lech P. Zintegrowane systemy zarządzania ERP/ERPII, Difin, 2003, wersja on-line dostępna na https://przemyslawlech.academia.edu/ 4. Szczepankiewicz E., Kontrola wewnętrzna i audyt wewnętrzny w jednostkach; Uniwersytet Ekonomiczny w Poznaniu; Wydawnictwo UEP, 2021. A.2. studiowana samodzielnie przez studenta 1. Wrycza S., Maślankowski J.W (red) Informatyka Ekonomiczna, PWN, Warszawa 2019 2. Saunders, Edmund J., Kamińska U., Kontrola Wewnętrzna - Zintegrowana Struktura Ramowa. PIKW, 2008. 3. Zarządzanie Ryzykiem Korporacyjnym - Zintegrowana Struktura Ramowa. T. 1, Streszczenie dla kierownictwa / COSO The Committee of Sponsoring Organizations of the Treadway Commission. Sigmeo, 2015. 4. Winiarska K., Audyt Wewnętrzny: Teoria i Zastosowanie; Difin, 2019.
	Supplementary literature	1. Dyhdalewicz A., Hołownia K., Kontrola wewnętrzna jako narzędzie realizacji zasady wiarygodności informacji prezentowanych w sprawozdaniu finansowym, Akademia Zarządzania 2019, 3(4), s. 30-50.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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