

## MODULE DESCRIPTION

Module code	<b>Z-ZIP-116z</b>
Module name	<b>Rachunek kosztów dla inżynierów</b>
Module name in English	<b>Costs Accounting for Engineers</b>
Valid from academic year	<b>2016/2017</b>

## A. MODULE PLACEMENT IN THE SYLLABUS

Field of study	<b>Management and Production Engineering</b>
Level of education	<b>1st degree</b> <i>(1st degree / 2nd degree)</i>
Studies profile	<b>General</b> <i>(general / practical)</i>
Form and method of conducting classes	<b>Full-time</b> <i>(full-time / part-time)</i>
Specialisation	<b>All</b>
Unit conducting the module	<b>The Department of Economics and Finances</b>
Module co-ordinator	<b>Marianna Kotowska-Jelonek, PhD hab., Professor of the University</b>
Approved by:	

## B. MODULE OVERVIEW

Type of subject/group of subjects	<b>Major</b> <i>(basic / major / specialist subject / conjoint / other HES)</i>
Module status	<b>Compulsory</b> <i>(compulsory / non-compulsory)</i>
Language of conducting classes	<b>English</b>
Module placement in the syllabus - semester	<b>6th semester</b>
Subject realisation in the academic year	<b>Summer semester</b> <i>(winter / summer)</i>
Initial requirements	<b>Microeconomics, Accounting</b> <i>(module codes / module names)</i>
Examination	<b>Yes</b> <i>(yes / no)</i>
Number of ECTS credit points	<b>5</b>

<b>Method of conducting classes</b>	<b>Lecture</b>	<b>Classes</b>	<b>Laboratory</b>	<b>Project</b>	<b>Other</b>
<b>Per semester</b>	<b>15</b>	<b>30</b>			

### C. TEACHING RESULTS AND THE METHODS OF ASSESSING TEACHING RESULTS

<b>Module target</b>	The module comprises basic issues concerning prime costs account in business entities as well as utilising various systems of cost accounts to manage an enterprise. The aim of the module is to familiarise students with the following: the essence of prime costs account of enterprises; the classification of prime costs in business entities; traditional systems of prime costs accounts (full costing and variable accounts) as well as utilising them to calculate unit costs; modern systems of cost accounts and their usefulness for the needs of managing an enterprise (standard costs accounts, product life cycle accounts, operational costs accounts, logistics costs accounts, and cost responsibility accounts).
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Effect symbol	Teaching results	Teaching methods <i>(l/c/lab/p/other)</i>	Reference to subject effects	Reference to effects of a field of study
W_01	A student has basic knowledge as regards the essence of prime costs of business entities, the principles and cross-sections of their analyses and assessment as well as factors having influence on their amount.	l/c	K_W10	S1A_W05 S1A_W06
W_02	A student knows traditional and modern systems of a prime costs account, their usefulness in cost analysis, calculating unit costs as well as in making management decisions.	l/c	K_W10 K_W12 K_W13 K_W14 K_W15	S1A_W05 S1A_W06 S1A_W11 T1A_W04 T1A_W06 T1A_W09 T1A_W11
W_03	A student knows basic methods of calculating unit costs as well as their usefulness to calculate unit costs in various types of economic organisations.	l/c	K_W10 K_W13	S1A_W05 S1A_W06 T1A_W09 T1A_W11
U_01	A student is able to identify and analyse prime costs of an enterprise in various analytical cross-sections using basic financial statements, in particular those concerning profit and loss account.	l/c	K_U01 K_U12 K_U13 K_U15	TA1_U01 TA1_U02 TA1_U03 TA1_U09 TA1_U10 TA1_U12 SA1_U03
U_02	A student can calculate technical as well as full unit costs of manufacturing a product or service utilising appropriately selected calculation method depending on assortment production type and structure.	l/c	K_U12 K_U13	TA1_U03 TA1_U09 TA1_U10 TA1_U12 SA1_U03
U_03	A student can identify and analyse factors having impact on the value of prime costs and the influence of decisions made in different activity fields of an enterprise on the level of prime costs.	l/c	K_U12 K_U13 K_U15	TA1_U02 TA1_U03 TA1_U09 TA1_U10 TA1_U12 SA1_U03
K_01	A student understands the role and significance of prime costs account in the analysis and assessment of the effectiveness concerning the activity of business entities as well as the necessity of continuous improvement of his/her knowledge concerning modern cost accounting systems.	l/c	K_K01 K_K05	T1A_K01 T1A_K06
K_02	A student identifies and solves problems in product optimisation utilising typical tools as regards economic sciences.	l/c	K_K02 K_K05	T1A_K02 T1A_K06

K_03	A student is aware of the responsibility for appropriate application of diverse techniques, methods, analyses, and calculation tools concerning prime costs in business entities to generate actual information enabling effectiveness assessment of management decisions.	I/c	K_K02 K_K03	T1A_K02 T1A_K05
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## Teaching contents:

### 1. Teaching contents as regards lectures

Lecture number	Teaching contents	Reference to teaching results for a module
1	<b>Prime costs of business entities</b> The essence of costs. Basic classification and analytical cross-sections of prime costs concerning enterprises. Prime costs with reference to related categories (expenditure, expense, and loss). Costs in enterprise effectiveness assessment. Costs as an element of the process of making management decisions.	W_01 U_01 K_01 K_02 K_03
2-3	<b>Calculating unit costs in the full costing system</b> The essence of calculating a unit cost. Basic calculation methods. Division calculation: its types and application. Additional calculation: types and application. Grouping costs in an enterprise registering system for additional calculation. The procedures of accounting indirect costs. Cost structuralisation. Full costing in relation to the profit and loss report. The usefulness of full costing in enterprise management.	W_02 W_03 U_02 K_01 K_02 K_03
4	<b>Variable costing</b> The description of fixed and variable costs in an enterprise. The essence of variable costing. Analysing costs variability. Variable costing in relation to the profit and loss report. Utilising variable costing to manage as well as to determine enterprise break-even point.	W_02 W_03 U_01 U_03 K_01 K_02 K_03
5	<b>Activity-Based Costing (ABC)</b> The genesis and essence of ABC. Methodological assumptions of ABC. Interpreting and identifying the processes in ABC. The calculation of product unit costs in ABC: calculation stages. The areas of application as regards ABC. The advantages and disadvantages of ABC.	W_02 W_03 U_03 K_01 K_02 K_03
6	<b>Product life cycle accounting</b> The description of a product life cycle. The essence of product life cycle accounting. The categories of costs in product life cycle. The principles of calculating the costs of a product life cycle.	W_02 W_03 U_03 K_01 K_02 K_03
7	<b>Logistics costs accounting</b> The essence of logistics. Logistic processes from the functional point of view. The costs of logistic processes and their structure. The essence of logistic costs accounting. Designing logistic costs. Utilising logistic costs accounting to manage an enterprise.	W_02 W_03 U_01 U_03 K_01 K_02 K_03
8	<b>Cost responsibility accounting</b> Budgeting as a management tool. Responsibility centres in the system of creating budgets. Basic types of responsibility areas. The procedure of preparing budgets. The components of the budget systems. Registering responsibility areas included in budgeting. The analysis of deviations concerning planned and executed costs. Activity control of cost centres.	W_02 W_03 U_03 K_01 K_02 K_03

## 2. Teaching contents as regards classes

Class number	Teaching contents	Reference to teaching results for a module
1	Comparative analysis of prime costs concerning business entities in the selected classification cross-sections.	W_01 U_01
2	The analysis of enterprise prime costs according to activity types (operational, non-operational, and financial). Cost systemisation in profit and loss account (comparative and calculation variant).	W_01 U_01
3	The calculation of unit costs using division calculation.	W_03 U_02 K_02 K_03
4-5	The calculation of unit costs using additional calculation.	W_03 U_02 K_02 K_03
6	A mid-term test.	
7	The influence of accounting indirect costs on the results of unit costs calculation. Analysing the phenomenon of costs proportionalisation.	W_03 U_02 K_02 K_03
8	The identification and analysis of fixed and variable costs in an enterprise.	W_02 U_03 K_01 K_02 K_03
9	Determining an enterprise break-even point.	W_02 K_02 K_03
10	Analysing deviations of real and standard costs on a given example.	W_02 K_02 K_03
11	A mid-term test.	
12	The identification of process in ABC. The calculation of product unit costs with the use of ABC.	W_02 K_02 K_03
13	The identification and analysis of the selected logistic processes.	W_02 K_02 K_03
14	Designing budgets for the selected responsibility centres.	W_02 K_02 K_03
15	A final test.	

## 3. Teaching contents as regards laboratory classes

Laboratory class number	Teaching contents	Reference to teaching results for a module

## 4. The characteristics of project assignments

## The methods of assessing teaching results

Effect symbol	<b>Methods of assessing teaching results</b> <i>(assessment method, including skills – reference to a particular project, laboratory assignments, etc.)</i>
W_01	A mid-term test, a final test during the classes, a written examination.
W_02	A mid-term test, a final test during the classes, a written examination.
W_03	A mid-term test, a final test during the classes, a written examination.
U_01	A mid-term test, a final test during the classes, a written examination.
U_02	A mid-term test, a final test during the classes, a written examination.
U_03	A mid-term test, a final test during the classes, a written examination.
K_01	Observing a student's work, argumentation manner, and initiative during the classes.
K_02	Observing a student's work, argumentation manner, and initiative during the classes.
K_03	Observing a student's work, argumentation manner, and initiative during the classes.

## D. STUDENT'S INPUT

ECTS credit points		
	Type of student's activity	Student's workload
1	Participation in lectures	15
2	Participation in classes	30
3	Participation in laboratories	
4	Participation in tutorials (2-3 times per semester)	3
5	Participation in project classes	
6	Project tutorials	11
7	Participation in an examination	2
8		
9	<b>Number of hours requiring a lecturer's assistance</b>	<b>61</b> <i>(sum)</i>
10	<b>Number of ECTS credit points which are allocated for assisted work</b> <i>(1 ECTS point=25-30 hours)</i>	<b>2.5</b>
11	Unassisted study of lecture subjects	20
12	Unassisted preparation for classes	15
13	Unassisted preparation for tests	16
14	Unassisted preparation for laboratories	
15	Preparing reports	8
15	Preparing for a final laboratory test	
17	Preparing a project or documentation	
18	Preparing for an examination	10
19		
20	<b>Number of hours of a student's unassisted work</b>	<b>63</b> <i>(sum)</i>
21	<b>Number of ECTS credit points which a student receives for unassisted work</b> <i>(1 ECTS point=25-30 hours)</i>	<b>2.5</b>
22	<b>Total number of hours of a student's work</b>	<b>124</b>
23	<b>ECTS points per module</b> <i>1 ECTS point=25-30 hours</i>	<b>5</b>
24	<b>Work input connected with practical classes</b> <i>Total number of hours connected with practical classes</i>	<b>70</b>
25	<b>Number of ECTS credit points which a student receives for practical classes</b> <i>(1 ECTS point=25-30 hours)</i>	<b>2.6</b>

## E. LITERATURE

Literature list	<ol style="list-style-type: none"> <li>1. Nowak E., Wierziński M., <i>Rachunek kosztów. Modele i zastosowania</i>, PWE, Warszawa 2010.</li> <li>2. Piechota R., <i>Projektowanie rachunku kosztów działań</i>, Wydawnictwo DIFIN, Warszawa 2005.</li> <li>3. Matuszek J., Krokosz-Krynke Z., Kołosowski M., <i>Rachunek kosztów dla inżynierów</i>, PWE, Warszawa 2011 r.</li> <li>4. Drury C., <i>Rachunek kosztów</i>, Wydawnictwo Naukowe PWN, Warszawa 2002.</li> <li>5. Miller J.A., (współpraca: Pniewski K., Polakowski M.), <i>Zarządzanie kosztami działań</i>, WIG – Press, Warszawa 2000.</li> <li>6. Kaplan R.S., Cooper R., <i>Zarządzanie kosztami i efektywnością</i>, Dom Wydawniczy ABC, Kraków 2000.</li> </ol>
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	<ol style="list-style-type: none"> <li>7. Kaplan R.S., Anderson S.R., <i>Rachunek kosztów działań sterowany czasem (TDABC – Time-Driven Activity-Based Costing)</i>, Wydawnictwo Naukowe PWN, Warszawa 2008.</li> <li>8. artykuły bieżące z czasopiśmiennictwa ekonomicznego dotyczące tematyki wykładów</li> <li>9. Karmańska A. (red.), <i>Rachunek kosztów i rachunkowość zarządcza. Pojęcia, problemy, zadania</i>, Wydawnictwo DIFIN, Warszawa 2004.</li> <li>10. Wermut J., <i>Zbiór przykładów z rachunkowości zarządczej z rozwiązaniami</i>, Ośrodek Doradztwa i Doskonalenia Kadr Sp. z o. o., Gdańsk 2000.</li> <li>11. Dobji M. (red.), <i>Zbiór zadań z rachunkowości zarządczej</i>, Wydawnictwo Akademii Ekonomicznej w Krakowie, Kraków 2001.</li> <li>12. Kostur A. (red.), <i>Rachunek kosztów. Zbiór ćwiczeń</i>, Wydawnictwo Akademii Ekonomicznej w Katowicach, Katowice 2007.</li> <li>13. Matuszewicz J., <i>Rachunek kosztów</i>, Wydawnictwo Finans - Servis, Warszawa 2011.</li> </ol>
Module website	