

**AGH**AGH UNIVERSITY OF SCIENCE  
AND TECHNOLOGY

Module name: Analysis of the company and management problems

Academic year: 2019/2020 Code: GIGR-2-308-PS-s ECTS credits: 3

Faculty of: Mining and Geoengineering

Field of study: Mining Engineering Specialty: Mineral processing

Study level: Second-cycle studies Form and type of study: Full-time studies

Lecture language: English Profile of education: Academic (A) Semester: 3

Course homepage: —

Responsible teacher: dr inż. Kowal Barbara (bkowal@agh.edu.pl)

### Module summary

The course Financial analysis of the company enables to broaden student's knowledge covering financial, strategic and business aspects of a company.

### Description of learning outcomes for module

MLO code	Student after module completion has the knowledge/ knows how to/is able to	Connections with FLO	Method of learning outcomes verification (form of completion)
Social competence: is able to			
M_K001	Student does the exercises individually or in a group.	IGR2A_U02	Execution of a project
Skills: he can			
M_U001	Student knows the measures used in the analysis of the company's activity.	IGR2A_U04	Activity during classes, Test
M_U002	Student is able to carry out: the method of comparison, the chain substitutions and its use to exert an influence of factors changes on economic phenomena, pyramid analysis. He can also determine whether the company is at the risk of bankruptcy or not using discriminatory models.	IGR2A_U03	Test, Execution of exercises, Activity during classes
Knowledge: he knows and understands			
M_W001	Student has detailed knowledge about financial analysis. He knows what is bankruptcy. He knows the models of early warning systems.	IGR2A_W05, IGR2A_W03	Test

M_W002	Student has knowledge about the financial goals of business activity and value creation process. Student can specify the main sources of financing business activity. He knows the structure of capital in the company.	IGR2A_W05, IGR2A_W03	Test results
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## Number of hours for each form of classes

Suma	Form of classes										
	Lectures	Auditorium classes	Laboratory classes	Project classes	Conversation seminar	Seminar classes	Practical classes	Fieldwork classes	Workshops	Prace kontrolne i przejściowe	Lektorat
30	15	15	0	0	0	0	0	0	0	0	0

## FLO matrix in relation to forms of classes

MLO code	Student after module completion has the knowledge/ knows how to/is able to	Form of classes										
		Lectures	Auditorium classes	Laboratory classes	Project classes	Conversation seminar	Seminar classes	Practical classes	Fieldwork classes	Workshops	Prace kontrolne i przejściowe	Lektorat
Social competence: is able to												
M_K001	Student does the exercises individually or in a group.	-	+	-	-	-	-	-	-	-	-	-
Skills: he can												
M_U001	Student knows the measures used in the analysis of the company's activity.	+	+	-	-	-	-	-	-	-	-	-
M_U002	Student is able to carry out: the method of comparison, the chain substitutions and its use to exert an influence of factors changes on economic phenomena, pyramid analysis. He can also determine whether the company is at the risk of bankruptcy or not using discriminatory models.	+	+	-	-	-	-	-	-	-	-	-
Knowledge: he knows and understands												
M_W001	Student has detailed knowledge about financial analysis. He knows what is bankruptcy. He knows the models of early warning systems.	+	+	-	-	-	-	-	-	-	-	-

M_W002	Student has knowledge about the financial goals of business activity and value creation process. Student can specify the main sources of financing business activity. He knows the structure of capital in the company.	+	-	-	-	-	-	-	-	-	-	-
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## Student workload (ECTS credits balance)

Student activity form	Student workload
Udział w zajęciach dydaktycznych/praktyka	30 h
przygotowanie projektu, prezentacji, pracy pisemnej, sprawozdania	25 h
Realization of independently performed tasks	20 h
Examination or Final test	2 h
Contact hours	1 h
Summary student workload	78 h
Module ECTS credits	3 ECTS

## Additional information

### Module content

#### Lectures

The place of financial analysis into management information system  
 Financial objectives & the analyse of value creation  
 Types of financial analysis (traditional vs modern)  
 Sources of financing  
 Financial troubles & warning system about bankruptcy  
 Business model

#### Auditorium classes

Managers cockpit (dashboard)  
 Financial analysis of economic health of a company  
 Du Pont Model as an extension of ROE index (pyramid analysis)  
 The influence of changing factors at the economic occurrence levels (method of successive substitutions)  
 Bankruptcy prediction models – Early Warning Systems (EWS)  
 Business model (canvas)  
 Team building

### Teaching methods and techniques:

Lectures: Treści prezentowane na wykładzie są przekazywane w formie prezentacji multimedialnej w połączeniu z klasycznym wykładem tablicowym wzbogaconymi o pokazy odnoszące się do prezentowanych zagadnień.

Auditorium classes: Podczas zajęć audytoryjnych studenci na tablicy rozwiązują zadane wcześniej problemy. Prowadzący na bieżąco dokonuje stosowanych wyjaśnień i moderuje dyskusję z grupą nad danym problemem.

### **Warunki i sposób zaliczenia poszczególnych form zajęć, w tym zasady zaliczeń poprawkowych, a także warunki dopuszczenia do egzaminu:**

1. passing lectures: writing a single choice test and filling in gaps
2. passing auditorium classes: test + work in groups + project execution and presentation

There is only one additional term for passing lectures/classes.

### **Zasady udziału w poszczególnych zajęciach, ze wskazaniem, czy obecność studenta na zajęciach jest obowiązkowa:**

Lectures:

- Attendance is mandatory: No
- Participation rules in classes: Studenci uczestniczą w zajęciach poznając kolejne treści nauczania zgodnie z sylabusem przedmiotu. Studenci winni na bieżąco zadawać pytania i wyjaśniać wątpliwości. Rejestracja audiowizualna wykładu wymaga zgody prowadzącego.

Auditorium classes:

- Attendance is mandatory: Yes
- Participation rules in classes: Studenci przystępując do ćwiczeń są zobowiązani do przygotowania się w zakresie wskazanym każdorazowo przez prowadzącego (np. w formie zestawów zadań). Ocena pracy studenta może bazować na wypowiedziach ustnych lub pisemnych w formie kolokwium, co zgodnie z regulaminem studiów AGH przekłada się na ocenę końcową z tej formy zajęć.

### **Method of calculating the final grade**

The final grade consists of: mark from lecture's test (30%), mark from the auditorium classes (50%), mark from the prepared thematic presentation (20%).

### **Sposób i tryb wyrównywania zaległości powstałych wskutek nieobecności studenta na zajęciach:**

In case of any absence - equalization of the student's arrears in the auditorium classes will be held according to the lecturer's findings.

### **Prerequisites and additional requirements**

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### **Recommended literature and teaching resources**

Materials provided by the teacher.

### **Scientific publications of module course instructors related to the topic of the module**

1. B. Kowal, Cele finansowe w procesie zarządzania przedsiębiorstwem górnictwem, W: Zarządzanie finansami : upowszechnianie i transfer wyników badań, Zeszyty Naukowe nr 50, Uniwersytet Szczeciński 2012
2. B. Kowal, Risk management and the concept of dynamic balanced scorecard, W: Dilemmas of the contemporary economy facing global changes, eds. Jarosław Kaczmarek, Tomasz Rojek, Cracow University of Economics. Department of Economics and Organization of Enterprises, Foundation of the Cracow University of Economics, Cracow 2012
3. B. Kowal, Analiza mierników celów strategicznych przedsiębiorstwa górnictwa węgla kamiennego, Przegląd Górniczy 2011, nr 9
4. R. Ranosz, B. Kowal, Application of the selected derivatives to estimate the mining investment projects; W: SEED 2017 : 2<sup>nd</sup> international conference on the Sustainable Energy and Environment Development : Kraków, Poland, 14-17 November, 2017
5. W. Sobczyk, P. Pelc, B. Kowal, R. Ranosz, Ecological and economical aspects of solar energy use E3S Web of Conferences [Dokument elektroniczny]. Energy and fuels 2016 : Krakow, Poland, September 21-23, 2016

6. B. Kowal, Key performance indicators in a multi-dimensional performance card in the energy sector, W: SEED 2017 : 2<sup>nd</sup> international conference on the Sustainable Energy and Environment Development : Kraków, Poland, 14-17 November, 2017
7. Structure of financing investments in the energy sector / Barbara KOWAL, Robert RANOSZ, Wiktoria SOBCZYK // E3S Web of Conferences [Dokument elektroniczny].2017 vol. 14 art. no. 01009, s. 1-8. Energy and fuels 2016 : Krakow, Poland, September 21-23, 2016
8. Key performance indicators in a multi-dimensional performance card in the energy sector, Barbara Kowal 2019 IOP Conf. Ser.: Earth Environ. Sci.214 012093
9. Dashboard – a system of measures supporting the enterprise in achieving its goals, Barbara KOWAL, Patrycja BAŁ, Marta SUKIENNIK, Journal of the Polish Mineral Engineering Society; ISSN 1640-4920, 2018, R. 20 nr 2, s. 41-46

### **Additional information**

The auditorium classes are compulsory. Passing the auditorium exercises can be obtained at the basic time (one term) and additional time limit (also one term). If a student has left more than 20% of the auditorium classes, he may not be allowed to take pass the subject in basic term. In case of any absence – equalization of the student’s arrears in the auditorium classes will be held according to the lecturer’s findings.

Lectures are not compulsory, but attendance is recommended. Lectures finish with a test.

All members of the project’s team (groups of 2 or 3 students) must participate in the presentation.