



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Modeling and analysis of financial processes

Course

Field of study

Engineering Management

Area of study (specialization)

Enterprise resource and process management

Level of study

Second-cycle studies

Form of study

part-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

Number of hours

Lecture

4

Laboratory classes

Tutorials

8

Projects/seminars

Other (e.g. online)

Number of credit points

1

Lecturers

Responsible for the course/lecturer:

Ph.D., D.Sc., Eng. Arkadiusz Borowiec, University

Professor

Responsible for the course/lecturer:

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Faculty of Engineering Management

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Prerequisites

KNOWLEDGE: The student knows the basic concepts of finance and the financial market. Has general knowledge about the functioning of the economy, its management and existing financial markets. Student is familiar with the structures of the money and financial market.

SKILLS: The student has the skills to perceive, associate and interpret phenomena occurring in the economy. Has the ability to perform calculations in the field of mathematical analysis.

SOCIAL COMPETENCES: The student is able to form independent assessments in the field of socio-economic policy, as well as argue his position and defend his opinions. Should show willingness to cooperate in a team and effectively search for information on the Internet.



Course objective

The student understand the basic mechanisms of the functioning of the financial system in the national economy and their impact on financial decisions taken by individual business entities. Developing students' skills in selecting various financial market instruments in the area of obtaining an effective source of financing. Ability to carry out an analysis of financial precessions taking place in the enterprise and on its basis make the selection of an adequate model - the source of financing - to the needs and perspectives of the enterprise.

Course-related learning outcomes

Knowledge

1. Knows the concept of finance and is able to identify streams and resources of alternative sources of financing [P7S_WG_05]
2. Is familiar with the differences arising from money and capital market solutions [P7S_WG_08]
3. Is familiar with the possibility of choosing the source of finance on the basis of an analysis of the current financial situation of the enterprise [P7S_WG_06]
4. Is able to discuss the basic issues regarding the choice of financing model - classic and alternative solutions [P7S_WG_02]

Skills

1. Has the ability to perceive, associate and interpret phenomena occurring in the economy in the financial market and its individual segments: money, capital and other market segments [P7S_UW_01]
2. Is able to assess the impact of the policies pursued by the state on the variability of availability of finance sources (credit, loan, financially Business Angels, alternative sources of financing) [P7S_UW_02]
3. Has the ability to find the necessary information about the source of finance to support effective company management [P7S_UW_04]
4. Is able to independently select financial instruments from the money and capital market, depending on the age and industry of the enterprise [P7S_UW_07]

Social competences

1. The student is aware of the impact of fiscal and monetary policy and financial markets on the functioning of individuals and enterprises [P7S_KK_01]
2. recognizes the need to compromise in various areas of economic policy [P7S_KK_02]
3. Is able to communicate efficiently in the field of finance and explain the benefits of modeling - the selection of financial instruments - individually for the company [P7S_KO_03]
4. Has the ability to compare individual market offers proposed by individual financial market segments: money, capital and other market segments [P7S_KO_03]



Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

LECTURE: formative assessments obtainable for: activity in discussions summarizing individual lectures or specific material (e.g. books, movies, articles), giving the student the opportunity to assess the understanding of the problem; written assignments asked during the semester (e.g. essay), written exam (e.g. in the form of Moodle test or traditional). Summative assessment: arithmetic average of formative grades with rounding conditions given and placed on the MODDLE platform - it is not possible to get a pass without passing the exam for a positive grade (min. 55% of points)

TUTORIALS: Formative assessment: current activity during classes and participation in the discussion; tickets with 10 questions; written works based on given books, articles or movies; preparing a financial report on a given topic and delivering it during classes; cas-study tasks; colloquium consisting of 26 questions including a minimum of three tasks to calculate). Summative assessment: arithmetic average of formative grades with rounding conditions given and placed on the MODDLE platform - it is not possible to get a pass without writing a colloquium for a positive grade (min. 55% of points)

Programme content

1. Raising capital for development - The role and significance of financing in modern market economies - A model of process management in the enterprise
2. The role and importance of analyzing financial processes in the enterprise
3. Financial aspects of process modeling in the enterprise
4. The role and importance of the legal identity of the enterprise as a determinant of obtaining a source of financing for development
5. Selection of the source of foreign capital and the consequences of the financial portfolio selection decision spread over time
6. Construction of the financial market and place of conventional (classic) and unconventional (alternative) forms of financing enterprises
7. High risk capital: Private Equity financing model - opportunities and threats of Venture Capital; Franchise as a business model increasing the chances of success and improving financial liquidity
8. Alternative sources of financing enterprises - Securitization, derivatives, factoring and debt forfaiting, leasing and long-term rental

Teaching methods

- I. FEEDING: 1. Informative lecture 2. Problem lecture 3. Conversational lecture 4. Talking 5. Lecture, reading
- II. SEARCHING FOR: 1. Case study 2. Brainstorming 3. Discussion - round table 4. Discussion - pyramid 5. Discussion - seminar 6. Discussion - paper



III. TUTORIAL - PRACTICAL: 1. Auditorium exercises 2. Demonstration method 3. Project method 4. Workshop method

IV. EXPOSING: 1. Demonstration (movie, presentation)

Bibliography

Basic

1. Kusztełak P. (red.), MS Excel w pracy finansisty. Analiza i modelowanie danych finansowych. Wyd PWE, Warszawa 2020
2. Nowak M., Borowiec A., Intuicyjne rozwiązywanie problemów decyzyjnych z wykorzystaniem teorii systemów szarych, Przegląd Organizacji 2019, nr. 12, str. 28-35
3. Małecka, J. (2018). Alternative Sources of Financing for SMEs in Poland in the Light of Empirical Research. Proceedings, Volume 2, EFERIC 2018. The 2nd Entrepreneurship and Family Enterprise Research International Conference. <https://doi.org/10.3390/proceedings2241521>
<https://www.mdpi.com/2504-3900/2/24>
4. Podstawka, M. (2017). Finanse, Instytucje, Instrumenty, Podmioty, Rynki, Regulacje. PWN

Additional

1. Bieniasz A., Czerwińska-Kayzer D. (2004): Venture capital – źródło kapitału dla przedsiębiorstwa. W: Zarządzanie finansami. Finansowanie przedsiębiorstw w Unii Europejskiej. Red. D. Zarzecki. T. 1. Uniwersytet Szczeciński, Szczecin: 21-31.
2. Wolak-Tuzimek A. (2004): Alternatywne źródła finansowania działalności przedsiębiorstw. W: Zarządzanie finansami. Finansowanie przedsiębiorstw w Unii Europejskiej. Red. D. Zarzecki. T. 1. Uniwersytet Szczeciński, Szczecin: 163-173.

Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,0
Classes requiring direct contact with the teacher	12	0,5
Student's own work (literature studies, preparation for laboratory / exercises, preparation for colloquia, project preparation, watching movies, cas-study tasks, writing an essay, reading a book) ¹	13	0,5

¹ delete or add other activities as appropriate