Syllabus of the course
Fundamentals of Financial Forecasting and Risk Management

Higher education degree: bachelor
Educational and professional program:
Economics and business management
Specialty: 051 Economics
Field of knowledge: 05 Social and behavioral sciences
Year of study: 3 **Semester:** 6
Number of credits: 5 **Language:** English

Head of the course

Ph.D., Associate Professor **Iryna Chyrak**

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Course description

In today's dynamic business environment and rapidly evolving financial landscape, the ability to accurately predict future financial performance and effectively mitigate risks is critical for achieving organizational success and sustainability.

The course “Financial Forecasting and Risk Management Basics” is a foundational course aimed at providing participants with essential knowledge and skills in predicting financial outcomes and managing associated risks. The course serves as an introduction to two crucial aspects of financial management: forecasting future financial outcomes and managing associated risks. In this course, students will delve into fundamental concepts, techniques, and strategies that will equip you with the knowledge and skills necessary to navigate the complexities of financial decision-making with confidence. The novelty of the course "Financial Forecasting and Risk Management" lies in its comprehensive approach to equipping participants with essential skills and knowledge in forecasting financial outcomes and managing associated risks.

The course begins with an exploration of the importance of financial forecasting in strategic decision-making processes. Participants will learn various forecasting methods and techniques, including time series analysis, regression analysis, and qualitative methods such as expert judgment and market research. Practical skills in building financial models using spreadsheet software will also be developed, enabling participants to forecast revenues, expenses, and cash flows accurately. Moving on to risk management fundamentals, participants will gain an understanding of different types of financial risks, such as market risk, credit risk, and operational risk. They will learn quantitative techniques for risk assessment and mitigation, including Value at Risk (VaR) analysis, credit scoring models, and Monte Carlo simulation. Throughout the course, emphasis will be placed on integrating financial forecasting with risk management practices. Participants will explore risk management strategies such as diversification, hedging, and insurance, and learn how to incorporate risk considerations into financial forecasts effectively. Utilizing a combination of lectures, readings, case studies, and hands-on exercises, this course offers a practical and immersive learning experience. By the end of the course, participants will emerge equipped with the knowledge and skills necessary to make informed financial decisions, navigate uncertainties, and contribute to the financial resilience and success of their organizations.

Overall, the course “Financial Forecasting and Risk Management Basics” provides participants with the knowledge and skills necessary to make informed financial decisions, develop accurate forecasts, and implement risk management strategies to safeguard against potential threats to financial stability and success. The course serves as a solid foundation for further exploration and specialization in the fields of finance, economics, and risk management, empowering participants to excel in today's dynamic and competitive business environment.

Course framework

Hours (lect. / pract.)	Themes	Learning outcomes	Tasks
2/2	1. Introduction to Financial Forecasting	provide a foundational understanding of the principles and techniques used to predict future financial outcomes. It aims to equip individuals with the knowledge needed to begin analyzing financial data and making informed projections	Surveys, testing, tasks
2/2	2. Data Collection and Analysis for Forecasting	gather and interpret data that will inform revenue and sales predictions. This involves systematically collecting relevant data from various sources, analyzing it to identify patterns and trends, and using statistical and analytical techniques to generate accurate forecasts	Testing, tasks
2/2	3. Forecasting Revenue and Sales	predict future financial performance based on current and historical data. This involves analyzing trends, market conditions, and other relevant factors to make informed estimates about future revenue and sales	Surveys, testing
2/2	4. Cash Flow Forecasting	predict the inflows and outflows of cash within an organization over a specific period. This theme aims to help businesses understand their future liquidity positions, ensuring they have enough cash to meet their obligations, such as paying bills, salaries, and investing in opportunities	Surveys, tasks
2/2	5. Profit and Loss Forecasting	predict an organization's future profitability by estimating its revenues and expenses over a specific period. This theme aims to provide insights into expected financial performance, allowing businesses to plan effectively, set realistic financial goals, and make strategic decisions	Surveys, testing
2/2	6. Forecasting	understand and predict how future financial activities	Testing,

	Changes in the Balance Sheet	will impact an organization's balance sheet. This theme focuses on projecting the potential changes in assets, liabilities, and equity over a certain period based on various factors like market conditions, business operations, investments, and financing activities	tasks
2/2	7. Introduction to risk management	provide a foundational understanding of risk management concepts, principles, and practices. It aims to introduce the basic terminology, processes, and objectives of risk management, helping individuals and organizations recognize the importance of proactively identifying and addressing risks	Testing, tasks
2/2	8. Approaches to risk management	explore and understand the various methods and strategies used to identify, assess, mitigate, and monitor risks. It aims to provide insights into different frameworks, tools, and best practices that organizations can use to effectively manage risks and ensure resilience against potential threats. This theme helps in selecting the most suitable risk management approach based on the specific context, objectives, and risk appetite of an organization or project	Surveys, tasks
2/2	9. Risk assessment	identify, analyze, and evaluate potential risks that could impact an organization, project, or activity. It helps in understanding the likelihood and consequences of different risks, allowing for better decision-making, planning, and mitigation strategies to minimize negative outcomes	Surveys, tasks
2/2	10. Risk response	develop and implement strategies and actions to effectively address and manage risks that have been identified and assessed	Testing, tasks
2/2	11. Risk strategy	develop a comprehensive approach for identifying, assessing, and managing risks in alignment with an organization's or state's overall objectives and goals	Surveys
2/2	12. Risk culture	explore and emphasize the importance of fostering a shared mindset, attitudes, and behaviors within an organization or state that influence how risks are identified, understood, communicated, and managed. It focuses on creating an environment where risk awareness is integrated into daily activities, decision-making, and strategic planning, thereby enhancing the overall effectiveness of risk management practices	Surveys, testing, tasks

2/2	13. Risk governance	provide a comprehensive framework for understanding how risks are managed, controlled, and mitigated at the highest levels of an organization or state. It focuses on the processes, structures, and mechanisms that are put in place to ensure that risks are effectively identified, assessed, and managed, aligning with the overall strategic objectives and ensuring resilience against potential threats	Surveys, testing
2/2	14. Financial Forecasting for State Protection during the War: an Analysis of Ukraine's Strategies	examine how financial forecasting techniques can be utilized to support state protection and stability in the context of war, with a specific focus on Ukraine	Surveys, testing, tasks
2/2	15. Risk Management for State Protection in Wartime: the Case of Ukraine	explore how risk management principles and practices can be applied to ensure the security and stability of a state during periods of conflict and uncertainty	Surveys, testing, tasks

References:

1. Beattie, A. (2020). Business Forecasting: Understanding the Basics. Investopedia, 432 p.
2. Beckett-Camarata, J. (2020). Public-Private Partnerships, Capital Infrastructure Project Investments and Infrastructure Finance, Emerald Publishing Limited, Bingley, pp. 225-241.
3. Blokdyk, G. (2020). Fixed Assets Management A Complete Guide - Edition Paperback, 317 p.
4. Felix I. Lessambo (2022). Forecasting Financial Statements' Analysis. Springer Books in Financial Statements, edition 2, pp. 279-287.
5. Green, F. (2021). How To Make Money In Stocks: A Guide To Stock Market Investing For Beginners To Show That Wealthy People And Hedge Funds Shouldn't Have All The Fun Paperback, 150 p.
6. Hamilton, Ch. (2021). Stock Market Terminology for Beginners: A Complete Guide to learning the Stock Market Lingo Paperback, 84 p.
7. He, S. (2020). Real Estate Investing Quick Start Guide: The Simplified Beginner's Guide to Successfully Securing Financing, Closing Your First Deal, and Building ... Real Estate, 313 p.
8. Hopkin, P. (2021). Fundamentals of Risk Management. Understanding, evaluating and implementing effective risk management, 4th edition. Konan Page, 489 p.
9. Hopkin, P. (2022). Risk Management (Strategic Success): textbook. Konan Page, 288 p.
10. Hyndman, R.J., & Athanasopoulos, G. (2021) Forecasting: principles and practice, 3rd edition, OTexts: Melbourne, Australia.
11. Nyabundi, H., Muthigah, F., Al-Lozi, B., Nakato, M., etc. (2021). Financial Management and Risks. European Journal of Business and Strategic Management (EJBSM), Vol 6, No 2, p. 76.

12. Shang, Z. (2021). The Research of Financial Forecasting and Valuation Models. Graduate School of Management, Atlantis Press. URL: file:///C:/Users/%D0%86%D1%80%D0%B0/Downloads/The_Research_of_Financial_Forecasting_and_Valuatio.pdf.

Assessment policy

- **Deadline and recourse policies:** Works passed in violation of terms without valid reasons are rated lower (-20 points). Modules are reassigned with the permission of the Dean, if there are valid reasons (for example, sick leave).
- **Academic Integrity Policy:** It's forbidden to cheat during tests and exams (including using mobile devices). Mobile devices may only be used during online testing. The use of artificial intelligence by students in the learning process must be carried out strictly in accordance with the principles of academic integrity, which include proper referencing, avoidance of plagiarism, and the preservation of independence in completing assignments".
- **Attendance Policy:** Attendance of lessons is a necessary component of the grade for which points are earned. For objective reasons (for example, illness, international internship), training may be provided on-line in case of agreement with the course leader.

Assessment

The final score (on a 100-point scale) the discipline "Fundamentals of Financial Forecasting and Risk Management " is defined as a weighted average, depending on the proportion of each component of test credit.

Module 1		Module 2		Module 3	Module 4
20 %	20 %	20 %	20 %	5 %	15 %
Current assessment	Modular control 1	Current assessment	Modular control 2	Training	Independent students' work
The grade for the current assessment is defined as the arithmetic average of the grades received during classes (6 topics - from 3 to 6 grades)	The grade for Modular control 1 is given on the basis of the completion of modular work on topics 1–6 (testing, theoretical questions, tasks)	The grade for the current assessment is defined as the arithmetic average of the grades received during classes (9 topics - from 6 to 9 grades)	The grade for Modular control 2 is given on the basis of the completion of modular work on topics 7–15 (testing, theoretical questions, tasks)	The grade for the training is defined as the arithmetic average of the grades received for completing the tasks during the training	Evaluation of the task of independent work of students

Student Assessment Scale:

ECTS	Scores	Content
A	90-100	perfect
B	85-89	good
C	75-84	good
D	65-74	satisfactorily
E	60-64	enough
FX	35-59	unsatisfactory with the possibility of reassembly
F	1-34	unsatisfactory with the required re-course