

Master Program “Financial analytics (in English)”

SEMESTER: 2

MODULE: 2-2

Course	Game Theory in Financial Management	
Instructor	Elena Smirnova, PhD (Economics), Associate Professor, Department of the Mathematical methods of Economics	
Credits	ECTS	Hours
	4	144
Classes	Lectures (hours)	Seminars (hours)
	10	18
Learning outcomes	Students will be provided with required theoretical tools, get acquainted with the theoretical properties of game theory techniques, will get a sound understanding of the applicability and limitations of game theory techniques under various conditions (uncertainty, risk, conflict and cooperation) and be able to apply the relevant method to solve certain problem of financial management.	
Topics	1 Introduction to the Decision Theory and General Theory of Choice 2 “Playing” against indifferent states of nature 3 Strictly determined games 4 Non-strictly determined games	
Text (Main literature)	<ul style="list-style-type: none"> · Soo T. Tan. Finite Mathematics for the Managerial, Life and Social Sciences. Brooks/Cole, Cengage Learning, 2012. · Raymond A, Barnett, Michael R. Ziegler. Finite Mathematics for Business, Economics, Life Sciences and Social Sciences. Prentice Hall, 2010. · Hamdy A.Taha. Operations Research: An Introduction. Prentice Hall, 2010. 	
Assessment	The final grade will be based on: <ul style="list-style-type: none"> · attendance - max.20 · current performance (solving the problems, written assignments, reports, presentations, tests, participation) – max.40 · written examination – max.40 	
Teaching Methods	Lectures, seminars (including group instructions, explanation of difficulties, problems solving), individual consultations.	