Modulbeschreibung

Decision Theory

Module numbers:	30.2696 [PVL 30.2697]
Language:	english
Study programme:	Bachelor KMI 2024/2021 - Wahlpflichtkatalog I Bachelor 2021 - Wahlpflichtkatalog I Bachelor dual KITS 2021 - Wahlpflichtkatalog I Bachelor dual KoSI 2021 - Wahlpflichtkatalog I Bachelor 2014 - Katalog I: Anwendungs- und systemorientierte Module Bachelor KMI 2014 - Katalog I: Anwendungs- und systemorientierte Module Bachelor dual KoSI 2014 - Katalog I: Anwendungs- und systemorientierte Module
Type of course:	V+Ü = Lecture+Exercise
Weekly hours:	2+2
Credit Points:	5
Exam:	written exam (Written end-term exam, graded, 90 minutes duration.)
PVL (e.g. Practical):	not graded (Practical with exercises, development or design tasks (not graded, successful participation in the practical is a preliminary exam performance).)
Learning objectives:	When individuals, groups or organizations become active in business, or economy in general, basically always decisions have to be made. Decision theory deals with the targeted actions of decision-makers who have the freedom to choose from a number of alternative decision options. This decision theory course aims to offer well-researched tools for making "rational" and "better" decisions in business and economy (normative), and also to explain how real decisions are made in practice there (descriptive). Students should: • be able to recognize, understand and critically discuss how decisions in business and economy are taken in a rational way (or, in an intentionally rational way), • be able to classify and formally describe different decision scenarios that appear in typical practice, • practically apply models and methods proposed by decision theory to common example scenarios, • develop an ability, through numerous examples, to recognize and discuss the possibilities and limitations of decision theory, • be able to critically discuss the problem of how "rational decision-making" and "optimal decisions" can be defined and adequate solutions identified.
Content:	• Normative and descriptive decision making • Basic model of decision theory (utility measurement, axiomatics, result matrix, preference functions, decision rules) • Decisions under security, risk and uncertainty • Formal representation of single-stage and multi-stage decision scenarios • Information acquisition in insecure decision scenarios • Committee decision making • (Interactive decision theory / "game theory" is not covered.)
Literature:	• Bamberg G, Coenenberg A, Krapp M: Betriebswirtschaftliche Entscheidungslehre, 16th rev. ed. Munich (2019). (in German) • Kahnemann D, Tversky A: „Prospect Theory: An analysis of decision under risk". Econometrica, (47) 2, 263-292 (1995). • Klein R, Scholl A: Planung und Entscheidung, 2nd ed. Munich (2011). (in German) • Rapoport A: Decision Theory and Decision Behaviour, 2nd rev. ed. New York, USA-NY (1998). • Sen A: „Rationality and Social Choice". American Economic Review, (85) 1, 1-24 (1995). • (Further literature will be discussed during the course.)
Lecture style / Teaching aids:	Seminar-style lecture, accompanying lecture notes, practical in small workgroups, exercises with solution hints.
Responsibility:	Oliver Skroch