

Subject card

Subject name and code	Tech venture development, PG_00208692						
Field of study	Chemical Business						
Date of commencement of studies	February 2027		Academic year of realisation of subject		2026/2027		
Education level	Master's studies		Subject group		Obligatory subject group in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	1		ECTS credits		3.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Department of Macroeconomics -> Faculty of Economics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Przemysław Kulawczuk, prof. UG				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		15.0		30.0	75
Subject objectives	Learning Objectives - Learning the basic elements of building and validating a technology company concept, elements of designing a technology enterprise organization, learning the key financial aspects of a technology company, product development techniques and technology application, choosing a strategy for entering new markets, methods of acquiring and motivating human capital in a technology company, going public and obtaining development capital at a later stage of development, technological collaboration with a large business partner, learning methods for exiting investments and monetizing intellectual property.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BCHMU2_U05] Is able to choose and apply, based on the literature of chemical sciences in Polish and English, appropriate methods and tools for solving problems in chemistry and related sciences.	Is able to select and apply, using the literature of chemical sciences in Polish and English, appropriate technologies and techniques for product development in a technological enterprise.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report
	[BCHMU2_W03] Knows and understands the legal and administrative procedures in chemistry and correctly interprets their international dimension.	Knows and understands in-depth legal and administrative procedures in companies developing technologies and chemical products, also in an international context.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[BCHMU2_W02] Knows and understands the axiological conditions regarding the use of modern measuring techniques and instruments as well as IT tools in chemistry, including economic aspects.	Knows and understands the fundamental values of the technology sector regarding the use of modern techniques and measurement instruments as well as IT tools in technology enterprises.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[BCHMU2_W07] Knows and understands legal and economic systems of organization and management of human resources, patent information and intellectual property resources related to the chemical industry and other sectors of the economy.	Knows and understands the legal and economic systems of organizing and managing human resources and intellectual property in technology enterprises.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[BCHMU2_K07] Is willing to conduct business and develop the enterprise, taking into account the principles of its establishment and functioning.	Is ready to run a business and develop an enterprise, taking into account the principles of their creation and operation in the technology sector.	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
	[BCHMU2_W05] Knows and understands the main trends in the development of chemistry combined with economics as two interpenetrating scientific disciplines.	Knows and understands the main directions of development of technological enterprises with a chemical profile.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
Subject contents	1. Rapid modeling of technology company concepts. 2. Validation of the business concept from a market and profitability perspective. 3. Assessment of the technical feasibility of production and services within the company. 4. Acquiring human capital for a technology company: the initial and advanced stages of development. 5. Organizing operational processes in a technology company. 6. Financial management of early development stages. 7. Product development techniques and product development process organization. 8. Market entry strategies and operational techniques. 9. Listing on a technology stock exchange. 10. Exiting investments and monetizing intellectual property. 11. Strategic investors, mergers and acquisitions in the technology industry. 12. Comprehensive development plan for a technology company. During interactive lectures, the lecturer and students will work on six micro-projects that may form part of the future Technology Company Development Plan. 1. Rapid business concept design 2. Designing the organization of a technology company 3. Strategy and operational activities for product development 4. Entering markets 5. Constructing a financial framework in the initial phase 6. IPO of a technology company: Timeline of activities		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Activity during classes 40%, Quality of microproject presentation 60%	51.0%	100.0%

Recommended reading	Basic literature	1. Literature required for final credit 2. A.1. Used during classes: 1. Eric Ries, <i>Metoda Lean Startup</i> , Warszawa 2022 2. Steve Blank, Bob Dorf, <i>Podręcznik startupu. Budowa wielkiej firmy krok po kroku</i> , Warszawa 2016 3. Marty Cagan, <i>Zainspirowani. Jak tworzyć kultowe produkty technologiczne</i> , Warszawa 2021 4. Ben Horowitz, <i>Najtrudniejsze w tym, co trudne. Prowadzenie biznesu, gdy nie ma prostych odpowiedzi</i> , Warszawa 2019 5. Nir Eyal, Ryan Hoover, Skuszeni. <i>Jak tworzyć produkty kształtujące nawyki konsumenckie</i> , Warszawa 2016 6. Brad Feld, Jason Mendelson, <i>Venture Deals. Be Smart Than Your Lawyer and Venture Capitalist</i> , Hoboken 2019
	Supplementary literature	A.2. Study by the student independently 1. Electronic publications provided or indicated by the instructor 2. IP Exporter's Guide for SMEs, Warsaw 2010, eds. M. Bąk, P. Kulawczuk. Supplementary Reading 1. Dean A. Shepherd, Michel P. Peters, Robert D. Hisrich, <i>Entrepreneurship</i> , Irwin Professional, 2007
	eResources addresses	
Example issues/ example questions/ tasks being completed	Rapid business model design for technology companies Stock option programs International market entry strategies for technology companies Creative product development/modification Issuing stocks on the domestic stock exchange and Nasdaq Intellectual property monetization and investment exit	
Work placement	Not applicable	

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