

Adaptation of mines to new functions – legal, technical, social and environmental conditions					
No	Name of thematic block	Class topics	Lecturer	Date	Duration
1.	Legal issues related to the liquidation of a mining plant	Introduction to the subject	Aleksandra Kuzior, PhD, Prof. PŚ Małgorzata Waksmańska WUG	24 May 2025	8
		Geological and mining law and other legal acts regulating the liquidation of a mining plant			
		The model used for the liquidation of a mining plant	Robert Odrobina SRK		
10.	Social communication and negotiations	Internal and external communication management	Dr Dariusz Krawczyk Silesian University of Technology	25 May 2025	8
		Crisis communication activities			
		Conflict in the organisation – causes, resolution and prevention			
		Social media in maintaining communication relations			
		Contact with the mass media (media relations)			
		Tools and techniques for communicating with the social, economic and political environment of the organisation			
3.	Methane drainage and utilisation on the surface	The threat of mine gases on the surface in mines that are being closed down or have been closed down. Gas risk	Dr Henryk Koptoń	14 June 2025	8 (6 hours GIG-PIB, 2 hours PŚL)
		Methods of methane removal and utilisation			
		Sustainable Development	Aleksandra Kuzior, PhD, Prof. PŚ		
4.	Groundwater and mine water management in active and closed mines	Hydrogeological consequences of mine closure. Water risks	Dr Katarzyna Niedbalska	15 June 2025	8
		Forecasting hydrogeological hazards related to the closure and flooding of mining workings in closed mines			
		Waterlogging of mining excavations, drainage systems and hydrogeological monitoring of active and closed mines			
		Assessment of hazards and monitoring of surface waterlogging under conditions of groundwater accumulation during mine closure			
		Impact of flooding of decommissioned hard coal mines in the GZW on public safety in post-mining areas			
14.1.	Case studies – field visits	Environmental risk management	Alicja Krzemień, PhD, Eng., Prof. GIG-PIB	4 October 2025	8 hours (lectures)
		Restoration of degraded and transformed ecosystems in post-mining areas	External expert - Pedro Riesgo (Oviedo University, Spain)		4 hours GIG-PIB 4 hours with an external expert: on site or remotely (to be agreed)
		Study visits: KD Barbara + Libiąż	Angelika Więckol-Ryk, PhD, Eng.	5 October 2025	8 including 1-1.5 hours of lectures at GIG-PIB before departure and approx. 1.5 hours at Barbara Dr Robert Hildebrandt
2.1.	Intelligent mine closure (scenarios, new business models)	Introduction to the Smart Closure concept New business models based on renewable energy, using the GreenJOBS project as an example	Dr Stanisław Tokarski, PhD Alicja Krzemień, PhD, Eng., Prof. GIG-PIB	8 November 2025	8
2.2.	Smart mine closure (green energy, hydrogen)	Green energy, hydrogen	Prof. Adam Smoliński, PhD, Eng.	9 November 2025	8
5.	Geomechanics, seismic hazards and surface impact	Seismic hazards in mines undergoing closure and closed mines, and monitoring of these phenomena. Seismic risk Monitoring of residual surface deformations in post-mining areas using InSAR satellite radar interferometry technology Numerical terrain models (NMT) of post-mining areas using modern measurement technologies (Lidar, laser scanning, photogrammetry) Geomatics in the monitoring of geodynamic and hydrogeological hazards in post-mining areas		13 December 2025	8
6.	Reclamation of mining sites	Legal and organisational basis for the revitalisation of degraded post-industrial areas Analysis of the causes and effects of environmental degradation related to mining activities Assessment of the degree of environmental degradation and methods of its remediation and revitalisation Good practices in the management of post-mining land reclamation – case study, including: Adaptation of post-mining areas – examples from EU countries Reclamation of post-industrial areas – Polish experience Innovative solutions of the GIG supporting reclamation activities	Prof. Barbara Białecka, PhD, Eng.	14 December 2025	8
7.	Monitoring of post-mining areas	The use of geophysical methods in assessing the safe use of post-mining areas Hydrogeological monitoring in mining and post-mining areas and its role in spatial management Monitoring of mine gases at the surface		17 January 2026	8
8.	Strategic management in the transformation processes of the mining sector	Strategic management Change management The origins and development of strategic management – the evolution of business management approaches The role of strategic management in enterprises Sectoral contexts of strategic management Paradigms in strategic management – schools of strategic thinking Business strategies – the concept of strategy; the business strategy model; classification and typology of business strategies; the hierarchy of strategies in a business Conditions for strategic choices Methods of assessing the strategic position of an enterprise Company goal system; vision, mission and values; corporate social responsibility Directions of company development	Prof. Marian Turek, PhD, Eng. Piotr Kordel, PhD, Eng., Prof. PŚ Silesian University of Technology	18 January 2026	8
9.	Restructuring of post-mining regions	Characteristics of the restructuring process in the context of revitalising post-industrial regions Assumptions of revitalisation processes, taking into account the specific nature of the transformation of the Upper Silesia region (from a historical and prospective perspective) The essence, premises, objectives and principles of restructuring in relation to enterprises and regions Types of restructuring Characteristics of the enterprise restructuring system Rationalisation of the scope of a company's activities in the financial, market, product, technological and social areas Innovation as a key factor in the approach to change in an enterprise Methodological and implementation problems of enterprise restructuring Company restructuring programme in the context of energy, environmental and social transformation Opportunities and barriers to enterprise restructuring. Effects of enterprise restructuring	Dr Marek Krannich, Silesian University of Technology	21 February 2026	8
11.	Assessment of the economic and social effectiveness of projects	Cost and capital management The essence and overview of business operating costs Cash flow forecasting for projects Methods of assessing the effectiveness of projects Project financing models and cost of capital Operational, financial and social risk management Risk and uncertainty in business decisions Fundamentals of risk categorisation in business Stages of risk management Overview of risk management methods Identification of sources and types of risk Risk prevention and diversification	Aneta Michalak, PhD, Eng., Prof. at the Silesian University of Technology	22 February 2026	8

12.	Cognitive technologies in organisation management	Management support methods and tools (AI and CT)	Dr Paweł Wawrzata Silesian University of Technology	21 March 2026	8
		Techniques for planning management activities in an organisation (AI and scheduling)			
		Supervision and risk minimisation systems in enterprises.			
		Optimisation of management processes (AI and CT)			
		Monitoring			
13.	Radiation hazard	Radioactive contaminated areas – causes, risk assessment, remediation, monitoring	Dr Michał Bonczyk, PhD	22 March 2026	8
		Discharge of radon-bearing (radioactive) water after mine closure – sustainable water management, monitoring, mitigation of radioactive contamination	Małgorzata Wysocka, PhD, Eng.		
		Radon in post-mining areas, integrated risk management			
14.2.	Case studies – field visits	Post-mining – principles of redeveloping post-mining areas	Dr Adam Hamerla	18 April 2026	4 hours
		The impact of extreme weather events on mining activities	Dr Małgorzata Markowska		4 hours
		Study visits: Rybnik + Ostrava/Karviná	Dr Adam Hamerla	19 April 2026	8 including 2 hours of lectures in Ostrava (Marcin Spyra - to be confirmed)
15.1.	Financing adaptation measures	Funding opportunities for adaptation and revitalisation measures	Marshal's Office of the Silesian Province	9 May 2026	2 hours
15.2.	Financing adaptation measures	Case studies	SRK representative	9 May 2026	6 hours
16.	Project management	Workshops	Prof. Andrzej Karbownik, Silesian University of Technology	10 May 2026	8