	Day	Date	Time	Subject	Description	Coach
Intro-duction online	0	-	-	Introductory part – asynchronous classes on the training platform, primarily programming in R and Python.	Trainers will prepare instructional videos, tasks, quizzes that will allow students to familiarize themselves with the programs and test their knowledge. Students will be required to complete a test and possibly additional training (depending on the test result) before participating in the summer school.	Various Coaches
Week 1	1	September, 1 (Mon)	09:00-10:30 10:45-12:15 12:30-14:00 (6 hrs total)	Introduction to AI	Introduction to AI, creating correct scripts, ethical principles, problems, advantages, using various tools e.g. ChatGPT, Gemini, AI as an assistant in analytical work.	**Maria Kubara, PhD**
	2	September, 2 (Tue)	09:00-10:30 10:45-12:15 12:30-14:00 (6 hrs total)	Advanced Python Programming	Advanced Python programming, object-oriented programming, creating advanced functions and scripts, implementation of the most important machine learning models and statistical methods in Python (also discussion of the basics of unsupervised machine learning - clustering, and supervised - neural networks, random forest, XGBoost, etc.).	**Ewa Weychert, MA**
	3	September, 3 (Wed)	09:00-10:30 10:45-12:15 12:30-14:00 (6 hrs total)	Advanced R Programming	Advanced programming in R, object-oriented programming, creating your own functions and packages, implementation of the most important machine learning models and statistical methods in R.	**Piotr Wójcik, PhD, DSc, Assoc. Prof.**
	4	September, 4 (Thu)	09:00-10:30 10:45-12:15 12:30-14:00 (6 hrs total)	Large Language Models, AI for Text Data	Application of AI in text data analysis and construction of large language models – extraction of information from customer opinions, statements and surveys, creation of chatbots and contact automation tools, understanding text modeling as the basis for the operation of modern AI systems.	**09:00-10:30 Maciej Świtała, PhD** **10:45-14:00 Jacek Lewkowicz, PhD Maciej Świtała, PhD**
	5	September, 5 (Fri)	09:00-10:30 10:45-12:15 12:30-14:00 (6 hrs total)	AI in Investments	AI in investments, implementation and use of high-frequency time series analysis methods, investment portfolio management, investment valuations, etc.	**Robert Ślepaczuk, PhD, DSc, Assoc. Prof.**
Week 2	6	September, 8 (Mon)	09:00-10:30 10:45-12:15 12:30-14:00 (6 hrs total)	AI in business	Analysis of AI applications in project management and decision-making, with a focus on risk, resource and budget management, and practical case studies demonstrating the opportunities and challenges of AI integration, including ethical and data protection aspects.	**Umair Rana Ashraf, PhD Anees Haider, PhD Bartłomiej Dessoulavy-Śliwiński, PhD**
	7	September, 9 (Tue)	09:00-10:30 10:45-12:15 12:30-14:00 (6 hrs total)			
	8	September, 10 (Wed)	09:00-10:30 10:45-12:15 12:30-14:00 (6 hrs total)	AI in Finance	Application of AI in assessing the situation of enterprises and financial institutions, review of analytical tools and practical workshops on financial data analysis from an interdisciplinary perspective.	**Agata Kocia, PhD Małgorzata Sulimierska, PhD**
	9	September, 11 (Thu)	09:00-10:30 10:45-12:15 12:30-14:00 (6 hrs total)	Explainable AI (XAI)	Explainability of AI models in the context of increasing transparency requirements – a review and implementation of methods to increase the understandability of "black-box" models, with particular emphasis on applications in medical data analysis and their specificity.	**Marcin Chlebus, PhD**
	10	September, 12 (Fri)	09:00-10:30 10:45-12:15 12:30-14:00 (6 hrs total)	AI in spatial data	Application of artificial intelligence in spatial data analysis – modeling spatial relationships between geographically close observations, growing importance of location data (including from phones, e-commerce, logistics), need to integrate AI with spatial statistics and econometrics methods in order to adapt the analytical approach.	**Piotr Wójcik, PhD, DSc, Assoc. Prof.**