Virtual Erasmus mobility
Data Visualization for Decision-Making 3 ECTS
Seeing is knowing: Visual intelligence for better decisions
February – March 2026

Sessions		Activities
17.02 8:45 am – 10:15 am	Virtual sessions	Introduction to the course. Business Intelligence as decision support. Why data needs visualization. • 2 ac. h online via BBB (e.tsi.lv) • Self-reading and reporting (independent study) • Self-assessment quiz (independent study)
24.02 8:45 am – 10:15 am		From business questions to data. Stakeholders, context, data limitations and trust. • 2 ac. h online via BB (e.tsi.lv) • Self-reading and reporting (independent study) • Self-assessment quiz (independent study)
03.03 8:45 am – 12:00 pm		Visual literacy and visual perception. Gestalt principles and preattentive attributes. • 4 ac. h online via BB (e.tsi.lv) • Self-reading and reporting (independent study) • Self-assessment quiz (independent study)
10.03 8:45 am – 12:00 pm		Charts as a visual language. Choosing the right chart. Accessibility and ethical visualization. • 4 ac. h online via BB (e.tsi.lv) • Self-reading and reporting (independent study) • Self-assessment quiz (independent study)
17.03 8:45 am – 10:15 am		Guided project workshop. Project framing, audience, and preparation for the intensive week. • 2 ac. h online via BBB (e.tsi.lv) • Self-reading and reporting (independent study)
Intensive training week 23.03.- 08:45-12:00. 24.03.-08:45-12:00. 25.03. -08:45-12:00. 26.03. 08.45-12.00 27.03. 08.45-12:00	RIGA In person	Project framing and design thinking. Defining goals, audience, and message. • 4 ac. h tutorial session • independent work on the project Visual design studio. Charts, layout, colour, focus and attention. • 4 ac. h tutorial session • independent work on the project Design critique and iteration. Peer-review and instructor feedback. • 4 ac. h tutorial session • independent work on the project Storytelling with data. Structuring insights for decision-makers. • 4 ac. h tutorial session • independent work on the project Final project presentation and reflection. • 4 ac. h tutorial session

Course description
Data Visualization for Decision-Making
Seeing is knowing: Visual intelligence for better decisions

In today's data-driven world, the ability to transform complex information into clear visual insights is essential for effective decision-making. This course develops your visual intelligence—the capacity to explore, understand, and communicate data through thoughtful visual design.

Students learn to bridge the gap between raw data and actionable insights by mastering the principles of visual perception, chart selection, and storytelling with data. The course emphasizes critical thinking about data sources, understanding stakeholder needs, and the ethical responsibilities of data visualization in business and society.

What You'll Learn:
- Apply visual perception principles (Gestalt theory, preattentive attributes) to create effective visualizations
- Select and design appropriate charts for different data types and audiences
- Frame business questions and translate them into visual analytical approaches
- Evaluate data quality, limitations, and trustworthiness before visualization
- Design accessible and ethically responsible data visualizations
- Construct compelling data narratives for decision-makers

Course Structure:
The course combines **5 online sessions** (February-March) with **one intensive on-site week in Riga** (March 23-27). Online sessions introduce core concepts through interactive lectures, self-directed readings, and assessment quizzes. The intensive week provides hands-on experience through design studios, peer critiques, and a culminating project where students transform real data into visual insights for specific stakeholders.

Who Should Enroll:
This course welcomes both technical and non-technical students at undergraduate and graduate levels. No prior experience in data visualization or programming is required—only curiosity about data and a willingness to think critically about how we see and interpret information.

Learning Outcomes:
Upon completion, students will be able to design, critique, and present data visualizations that support informed decision-making in professional contexts, while demonstrating awareness of visual literacy, accessibility standards, and ethical considerations.

Total workload: 80 academic hours (34 contact hours + 46 independent study) = 3 ECTS