

Data Visualization					
Course Code CIF62064	Student Workload 90 hours	Credits (according to ECTS) 4,5	Semester Semester 6	Frequency each even-semester	Duration 16 meetings
1	Types of courses <i>Elective (Informatics Engineering level)</i>	contact hours 63 hours	independent study 27 hours	class size 40 students	
2	Prerequisites for participation Have completed Object Oriented Programming course				
3	Learning outcomes <ul style="list-style-type: none"> • IF-ILO-3 <p>Graduates are able to develop professional careers in the field of computer science based on quality aspects, data-based decision making, be responsible, and make continuous improvements.</p>				
4	Subject aims <ul style="list-style-type: none"> • Students are able to understand visualization concepts and techniques, data models, graphic perception, coding methods and visual interaction • Students are able to understand the types of data and analysis methods of various types of data (multivariate data, network, text, and cartography) • Students are able to apply data visualization techniques in the form of systems and carry out evaluations • Students are able to understand scientific research manuscripts on data visualization 				
5	Teaching methods lectures, case study, class discussion, presentation				
6	Assessment methods assignment, mid-term examination, end-term examination, project evaluation, practical-skill assessment				
7	This module is used in the following degree programs as well <i>Informatics Engineering</i>				
8	Responsibility for module				
9	Other information <ol style="list-style-type: none"> 1. The Visual Display of Quantitative Information, E. Tufte. Graphics Press, 2001. 2. Envisioning Information, E. Tufte. Graphics Press, 1990. 3. Interactive Data Visualization for the Web, 2nd Edition. Scott Murray, O'Reilly Press. 				