

Visualisation des données et de l'information

Lecturer

Sébastien DE VALERIOIA (Coordinator)

Course mnemonic

STIC-B540

ECTS credits

5 credits

Language(s) of instruction

French

Course period

First term

Campus

Solbosch

Course content

- 1 Introduction
- 2 Description of quantitative data
- 3 Graphic grammar and its implementation
- 4 Principles of graphic design
- 5 A graphics toolbox (1)
- 6 A graphics toolbox (2)
- 7 Secondary elements of a graph and tables
- 8 A graphics toolbox (3)

Objectives (and/or specific learning outcomes)

- > Understand the different types of data that can be viewed.
- > Master the elements constituting a graph, their strengths and weaknesses.
- > Know the types of graphics available, and how best to use them.
- > Be able, based on a set of data and an objective, to choose the visualization that will best convey a message.
- > Make the best use of visualization tools to explore a set of data, to understand its essence, the (co-)relationships
- > Be able to critically analyze a graph you are confronted with.
- > Master the graphing tool studied during the course (ggplot)

Teaching method and learning activities

- > 8 sessions of 3 hours of ex-cathedra courses (to be given via video capsules in 2020-2021 due to the health crisis)

- > 3 practical sessions (to be given via Teams in 2020-2021 due to the health crisis)
- > a group project to be carried out during the year

Contribution to the teaching profile

For M-JOURR:

CARRYING OUT SCIENTIFIC WORK

- > Designing answers
- > Collecting, structuring, analyzing and interpreting data and documents
- > Format and communicate research results (written and oral expression)
- > Develop a clear, precise, structured and well-argued discourse

LEARN TO ACT PROFESSIONALLY

- > Implementing scientific expertise
- > Demonstrating critical thinking and autonomy
- > Implementing the capacities of analysis, synthesis, contextualization, rigor and coherence

For M-STICS :

CARRYING OUT SCIENTIFIC WORK

- > To critically apply what one has learned and to innovate in order to conduct research independently.
- > Collects data and documents using appropriate work instruments and submits them to the appropriate department to the criticism of the data and documents collected
- > Formulate hypotheses, analyze, structure and interpret data
- > Format and communicate research results (written and oral expression)
- > Elaborate a clear and constructed discourse, argue and use the scientific language of the discipline

LEARN TO ACT PROFESSIONALLY

- > Implementing scientific expertise :
- > Demonstrating critical thinking and autonomy
- > Implementing the capacities of analysis, synthesis, contextualization, rigor and coherence.

References, bibliography and recommended reading

- > Cleveland, W. S., Visualizing data, Murray Hill, Hobart Press, 1993 ;
- > Tufte, E., The visual display of quantitative information, Cheshire, Graphics Press, 2001 ;
- > Ware, C., Information visualization : Perception for design, San Francisco, Morgan Kaufmann (Elsevier), 2004 (The Morgan Kaufmann Series in Interactive Technologies, 22) ;

- Few, S., Show me the numbers : Designing tables and graphs to enlighten, Oakland, Analytics Press, 2004.

Course notes

Université virtuelle

Other information

Place(s) of teaching

Solbosch

Contact(s)

Sébastien de Valeriola

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Evaluation method(s)

written examination and Written report

Evaluation method(s) (additional information)

Examen écrit en session, projet de groupe en cours de semestre

Determination of the mark (including the weighting of partial marks)

First session: in-session exam: 12/20; group draft: 8/20

Second session: in-session exam: 20/20

Main language(s) of evaluation

French

Programmes

Programmes proposing this course at the faculty of Letters, Translation and Communication

MA-JOUR | **Master in journalism** | finalité Narrative journalism and investigative journalism/unit 1, finalité Journalism, politics, and society in Belgium/unit 1 and finalité Research/unit 1 and MA-STIC | **Master in Information and Communication Science and technology** | finalité Professional/unit 1