

COVERING MIGRATIONS

A BEGINNERS KNOW-HOW GUIDE FOR E-LEARNERS



CoMMPASS

Communicating Migration and Mobility

E-Learning Programs and Newsroom Applications for sub-Saharan Africa

is co-funded by the Erasmus+ Programme of the European Union,

coordinated by the Erich-Brost Institute for International Journalism at *Technische Universität* Dortmund (Germany)



and implemented by ISCTE, *Instituto Universitario de Lisboa* (Portugal), Makerere University (Uganda), Malawi University of Business and Applied Sciences (Malawi), *Université Thomas-Sankara* (Burkina Faso), *Université Joseph-Ki-Zerbo* (Burkina Faso), University of Livingstonia (Malawi) and Uganda Christian University (Uganda).

www.commpass.org

CoMMPASS is an Erasmus+ project co-funded by the European Union. Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

Cover picture: Freepik.

Cover logo: Nestor Yougabre

© CoMMPASS, 2024

1. DATA ON THE PROGRAMME

- 1.1 Field of study **Journalism / Communication and Media Studies**
- 1.2 Recommended level [*Bachelor/ Masters*] **Bachelor**
- 1.3 Recommended study programme/ qualification **Journalism / Mass communication**

2. DATA ON THE DISCIPLINE

- 2.1 Name **Data Journalism and Visualization**
- 2.2 Recommended qualifications for the teacher [*practitioner, theoretician, PhD holder in a certain field of study, etc.*] **Academic, Journalist, PhD**
- 2.3 Year of study [*entry level/ advanced*] **Advanced**
- 2.4. Evaluation type [*examination/ project/portfolio*]
Project

3. PRECONDITIONS (IF APPLICABLE) [WHO ARE THE INTENDED STUDENTS]

- 3.1 curriculum preconditions (recommended previous courses) **Gathering information techniques, Online journalism, Web design/Multimedia, Investigative journalism, Data Analytics/Statistics**
- 3.2 competences preconditions **Excel**

4. INFRASTRUCTURE NEEDED (IF APPLICABLE)

- 4.1 for the course **Laptop, Projector, Screen, Audio System, Internet access**
- 4.2 for the seminar/laboratory **Laptop, Projector, Screen, Audio System, Internet access**

5. SPECIFIC ABILITIES [WHAT DO WE WANT STUDENTS TO BE ABLE TO DO]

- 5.1. Professional competencies **To collect data from public sources**
[*job skills to be developed*] **To store and organize data using available digital tools**

To analyse data using basic statistical methods To extract relevant information from the data set

To visually present data using graphic design and visual tools

To tell a journalistic story

5.2. Transversal competencies

[team work, critical thinking, global citizenship, etc.]

Teamwork, critical thinking

6. DISCIPLINE'S OBJECTIVES [RELATED TO DEVELOPING ABILITIES & COMPETENCIES]

6.1 General objective

The objective is to teach the future journalists to be able to present stories in a visual digital manner using data, adapted to new media and new technological tools.

6.2 Specific objectives

[Learning outcomes – observable, measurable]

By the end of the semester, students in this course will:

- **Use online and offline tools (most of them free) to create visual stories, articles with data and graphics.**

7. CONTENT [FOR 12-14 WEEKS]

Course/Seminar/Laboratory

Teaching methods

Observations

[connected to professional & transversal competencies]

[Homework/ Readings due]

Course intro. Introduction, syllabus.

What is data? Why data journalism matter.

Why the numbers count? Instruments for finding public data. Public records and databases. Finding stories and ideas.

Students work together to discover and analyse examples of best practices. Assigning working teams.

Find a dataset, explain the steps you made to find it and explain why the data could be relevant for a newsstory. Upload the homework on the blog.

Gray, Chambers, Bounegru (eds., 2012), chapters: [The](#)

8. SOFTWARE REQUIREMENTS (Windows or MAC OS)

MS Office (especially Excel) - Not free - Win/Mac

Tableau Public - Free (Win/Mac) - the free version allows the use of data not bigger than 100.000rows

QGIS - Free - Win/Mac - mapping

Google Fusion Tables - Free/online - mapping

9. OPTIONAL:

R Studio - Free

10. OTHER TOOLS (ONLINE & OFFLINE):

Adobe Illustrator - Not free Google Charts - Free/online

Tabula - Free - Tabula is a tool for liberating data tables locked inside PDF files. (Win/Mac)

Gephi - Free (Win/Mac) - Gephi is the leading visualization and exploration software for all kinds of graphs and networks.

Wordle - Free/online - Creates word clouds

Odyssey.js - Free/online - A simple way for journalists, designers, and creators to weave interactive stories

Timeline.knightlab - Free/online - Tool for creating timelines Word Tree - Free/online - create word trees from text

II. TOOLS FOR APPLIED WORKS

VIS - <https://vis.occrp.org/> (tutorial: <https://www.youtube.com/watch?v=RzVx9t-r7jQ>)

12. ONLINE INFOGRAPHIC MAKERS [VARIOUS ONLINE AVAILABLE RESOURCES

infogr.am - online tool for creating infographics - Free version is with limited functionality

Piktochart - Free, but with limited functionality - Online infographic maker

13. VIDEO TOOLS

Moovly - 30 days trial Free (limited functionality, low quality video) - video creation tool Powtoon - Free with limited functionality - video creation tool

GoAnimate Animaker - Free with limited functionality - animated charts and graphs Adobe AfterEffects CC - Not free

14. CORE BIBLIOGRAPHY

Berret, Charles & Phillips, Cheryl, 2016, *Teaching Data and Computational Journalism*. USA:Columbia Journalism School-Knight Foundation;

Cairo, Alberto 2013, *The Functional Art: An Introduction to Information Graphics and Visualization*, Bekerly: New Riders;

Cohen, Sarah, 2001, *Numbers in the Newsroom: Using Math and Statistics in News*, online, e-book, 1-55;

Gray, J., Chambers, L., Bounegru, L., *Data visualisation Handbook*, 2012, *The Data Journalism Handbook*, Beijing, Cambridge, Fllillham, Koln, Sebastopol, Tokyo: O'Reilly Media (available online at <http://datajournalismhandbook.org/>);

15. HOW IS THE DISCIPLINE CONNECTED TO THE EXPECTATIONS OF THE PROFESSIONAL / EPISTEMIC COMMUNITY

The pressure for decisional transparency and the resulting increased access to all kinds of information of public interest allow journalists to be able to work with an impressive volume of data. Withal, the apps and tools for data processing make some stories based on numbers much easier to say and understand.

Data journalism is the conjunction of a set of competencies in diverse areas, such as statistics or computing, used to diversify the journalistic content and to make it more relevant. On the other side, data visualization (visual journalism) includes graphic design techniques to present data, such as graphics, charts or maps, that help journalists tell a news story better for their public.

16. HOW IS THE DISCIPLINE CONNECTED TO THE REST OF THE JOURNALISTIC / COMMUNICATION STUDIES CURRICULUM

This Data Journalism & Visualization course introduces students to new techniques of telling news stories based on numbers and visual design, from data gathering and analysis, to visualization.

17. EVALUATION

[how to measure students' acquired abilities, through different instruments, such as: tests; analyses of existing journalistic examples; essays, suggested portfolio]

Type of activity	11.1 Evaluation criteria	11.2 Evaluation methods
Course	Bonuses	Ongoing evaluation
Seminar/ laboratory	50% for data journalism, 50% data visualisation	Homework assignments

11.3 Minimum performance standard *[linked to specific objectives/ learning outcomes]*

All the assignments will be uploaded on a blog with private visualisation.



This syllabus is under the Attribution 4.0 International ([CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)) license.



tu dortmund
university

iscte

INSTITUTO
UNIVERSITARIO
DE LISBOA

MAKERERE



UNIVERSITY



UNIVERSITE

THOMAS SANKARA



University of Livingstonia



LUGANDA CHRISTIAN
UNIVERSITY

Erasmus+ Project 101082809

Communicating Migration and Mobility – E-Learning Programs and Newsroom Applications for sub-Saharan Africa



Funded by the
European Union