# Course Code
# Data Journalism and Information Visualization
# Module 3, 2018-2019

## Course Information

***Instructor:***
Office: PHBS Building, Room 651
Phone: 86-755-2603-2704
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Office Hour: Tue & Fri 16:30-17:30

***Teaching Assistant: TBD***
Phone:
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***Classes:***
Lectures: Tue & Fri 13:30-16:30
Venue: PHBS Building, Room

## 1. Course Description

### *1.1 Context*

**Course overview:** Every day, more of our lives are being stored in a database somewhere. With that explosion of data, journalists now more than ever need the skills to analyse and understand data to then produce the stories hidden in the information. In this class, we'll use brainpower and software to look at raw data -- not summarized and already reported information -- to do investigative reporting. We're going to get our hands dirty with spreadsheets, databases, maps and some basic stats. And we're going to do journalism. So buckle up and hold on.
This course teaches some of the skills and techniques necessary for using statistical information effectively in data journalism. Obtaining, interpreting, visualizing and displaying data are essential skills for journalists in the 21st Century, especially those who cover financial and technical subjects. Students will scrutinize techniques used in previously published projects and will also analyse data on their own, evaluating and producing tables, charts and diagrams using a variety of basic desktop software, web tools and basic scripting and programming.

**Prerequisites:** Social Research Method

### *1.2 Textbooks and Reading Materials*

- The Data Journalism Handbook. Free!
- Data Literacy: A User's Guide
- The Truthful Art
- 黄慧敏：最简单的图形与最复杂的信息。浙江人民出版社，2013 年。

## 2. Learning Outcomes

### *2.1 Intended Learning Outcomes*

| Learning Goals | Objectives | Assessment (YES with details or NO) |
|---|---|---|
| 1. Our graduates will be effective communicators. | 1.1. Our students will produce quality business and research-oriented documents. | NO |
| | 1.2. Students are able to professionally present their | YES. |

| | | |
|---|---|---|
| | ideas and also logically explain and defend their argument. | Telling story from data, with data. |
| 2. Our graduates will be skilled in team work and leadership. | 2.1. Students will be able to lead and participate in group for projects, discussion, and presentation. | YES.<br>Master spreadsheets and basic data analysis for storytelling. |
| | 2.2. Students will be able to apply leadership theories and related skills. | YES. |
| 3. Our graduates will be trained in ethics. | 3.1. In a case setting, students will use appropriate techniques to analyze business problems and identify the ethical aspects, provide a solution and defend it. | NO. |
| | 3.2. Our students will practice ethics in the duration of the program. | YES.<br>How to access data efficiently and ethically. |
| 4. Our graduates will have a global perspective. | 4.1. Students will have an international exposure. | YES.<br>Publish final data journalism work to media platform. |
| 5. Our graduates will be skilled in problem-solving and critical thinking. | 5.1. Our students will have a good understanding of fundamental theories in their fields. | YES.<br>Data visualization, descriptive statistics, social network analysis. |
| | 5.2. Our students will be prepared to face problems in various business settings and find solutions. | NO. |
| | 5.3. Our students will demonstrate competency in critical thinking. | YES.<br>3Cs in class: Curious, Critical, Creative. |

## *2.2 Course specific objectives*

- Understand the basics of data and data journalism, including the history of the practice
- Master the use of data in journalistic storytelling
- Master spreadsheets and basic data analysis for storytelling
- Use public records laws and understand your rights as a citizen and a journalist
- Gain exposure to advanced tools of data journalism, like GIS and statistics, as well as advanced methods of gathering data

## *2.3 Assessment/Grading Details*

The grading will be based on the stories you produce, the work you put into them and your participation in class. The bulk of the graded work in this class is as follows:

| Assignment | Percentage of your grade |
|---|---|
| Final Project | 60% |
| Assignments (case study & tool review) | 40% |

Final Project: You will be required to pitch and execute four data journalism stories on your own during module 3. The stories must include original analysis of data you have obtained, a graphic or visualization of that data and a story worth publishing on “datahotpot” (or elsewhere if possible).

## *2.4 Academic Honesty and Plagiarism*

It is important for a student’s effort and credit to be recognized through class assessment. Credits earned for a student work due to efforts done by others are clearly unfair. Deliberate dishonesty is considered academic misconducts, which include plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades,

honors, awards, or professional endorsement; or altering, forging, or misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis.

All assessments are subject to academic misconduct check. Misconduct check may include reproducing the assessment, providing a copy to another member of faculty, and/or communicate a copy of this assignment to the PHBS Discipline Committee. A suspected plagiarized document/assignment submitted to a plagiarism checking service may be kept in its database for future reference purpose.

Where violation is suspected, penalties will be implemented. The penalties for academic misconduct may include: deduction of honour points, a mark of zero on the assessment, a fail grade for the whole course, and reference of the matter to the Peking University Registrar.

For more information of plagiarism, please refer to *PHBS Student Handbook*.

## 3. Topics, Teaching and Assessment Schedule

| | |
|---|---|
| Tue. 19 | Lesson 1: What is data journalism? |
| Readings | The Data Journalism Handbook, Chapter 1 |
| Tue. 22 | Lesson 2: Guide to Information Graphics |
| Readings | 《最简单的图形与最复杂的信息》; The Truthful Art, Chapter 5 |
| Tue. 26 | Presentation1: Case studies |
| Readings | @叶未名 #DJ# |
| Mar. 1 | Lesson 3: Access to data |
| Readings | The Truthful Art, Chapter 11 |
| Mar. 5 | Presentation 2: Newsroom: My Topic |
| Mar. 8 | Lesson 4: Data Analysis 101: Data cleaning |
| Readings | The Truthful Art, Chapter 3, 4 |
| Mar. 12 | Lesson 5: Data Analysis: From data to charts & graphs |
| Readings | The Truthful Art, Chapter 6, 7, 8 |
| Mar. 15 | Lesson 6: Drafting your project |
| Readings | The Truthful Art, Chapter 2 |
| Mar. 19 | Lesson 7: Data Analysis: From data to maps |
| Readings | The Truthful Art, Chapter 10 |
| Mar. 22 | Lesson 8: Data Analysis: From data to Social Networks |
| Readings | Exploratory Social Network Analysis with Pajek, Chapter 1, 2 |
| Mar. 26 | Lesson 9: From data to interactive storytelling |
| Readings | The Truthful Art, Chapter 12 |
| Mar. 29 | Presentation 3: Final Project |

## 4. Miscellaneous

## Curious! Critical! Creative!