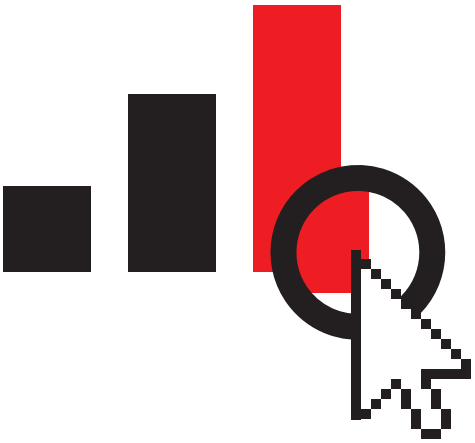


CVJ 622

Infographics and Data Visualization

Section Q

FALL SEMESTER, 2015
Tuesday and Thursday
12.30-1.45a.m.
Room 2057

INSTRUCTOR

Alberto Cairo
School of Communication, Office 5051L
e-mail: alberto.cairo@gmail.com
Twitter: @albertocairo
Office Hours Tuesday and Thursday
11a.m.-12.30p.m.
Friday: By appointment

COURSE DESCRIPTION

This course is an introduction to the visual display of information in digital and interactive media, with a special focus on the encoding of data by means of statistical charts, maps, and diagrams.

Description and policies

Overview

This course is an introduction to the principles of visual representation of information. It consists of a deep study of infographics and data visualization, the use of charts, maps, diagrams, and illustrations to tell stories. In this course, you will learn to create effective and beautiful graphical displays of evidence, and to critically evaluate examples from print media, and the Internet.

There will be two kinds of sessions: regular classes and lab-time, as detailed in the calendar. Regular classes will be a mix of lectures and hands-on exercises that will show you how to apply the theoretical principles we'll cover. Attendance is mandatory both for regular classes and lab-time sessions.

This course has a VERY HEAVY WORKLOAD. You may need between 5 and 10 hours of out-of-class time a week to complete the assignments. Be prepared for that.

If you need me, you can contact me at any time by e-mail, or you can drop by my office. I am writing this not just as a formality: if I am at the School of Communication and I am not doing anything that requires my immediate attention, I will help you. If for some reason I cannot answer your questions at that particular time, I will schedule a short meeting with you as soon as possible, or record a video for you in my computer.

Students enrolled in this course are expected to abide by the University of Miami Honor Code. The purpose of the Honor Code is to protect the academic integrity of the University by encouraging consistent ethical behavior in assigned coursework. Academic dishonesty of any kind, for whatever reason, will not be tolerated. No honest student wants to be guilty of the intellectual crime of plagiarism, even unintentionally. Therefore, we provide you with these guidelines.

Plagiarism is the taking of someone else's words, work, or ideas, and passing them off as a product of your own efforts. Plagiarism may occur when a person fails to place quotation marks around someone else's exact words, directly rephrasing or paraphrasing someone else's words while still following the general form of the original, and/or failing to issue the proper citation to one's source material.
In student papers, plagiarism is often due to:

• Turning in someone else's paper as one's own
• Using another person's data or ideas without acknowledgment
• Failing to cite a written source (printed or internet) of information that you used to collect data or ideas
• Copying an author's exact words and putting them in the paper without quotation marks
• Rephrasing an author's words and failing to cite the source
• Copying, rephrasing, or quoting an author's exact words and citing a source other than where the mate- rial was obtained. (For example, using a secondary source which cites the original material, but citing only the primary material. This misrepresents the nature of the scholarship involved in creating the paper. If you have not read an original publication, do not cite it in your references as if you have!)
• Using wording that is very similar to that of the original source, but passing it off as one's own.
The last item is probably the most common problem in student writing. It is still plagiarism if the student uses an author's key phrases or sentences in a way that implies they are his/her own, even if s/he cites the source.

Description and policies

Attendance Policy

Coming to class is crucial for your success. Being in the lab while we work on projects, for instance, is necessary for me to be able to give you constant feedback on your progress. Therefore, each unexcused absence will result in a 25 points reduction in your final grade. Excused absences (doctor's note, for instance) won't affect your grade. In addition, every late arrival (5-10 minutes) will result in another 10-point drop. Coming late can disrupt other students.

No cell phones, messaging, or Web surfing are allowed during lectures and discussions.

If you are on the waiting list

If you are on the waiting list for this class, please be aware that attendance is mandatory from the very first day. You won't be allowed into the course otherwise.

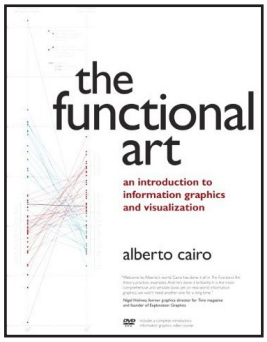
Religious Holy Day policy

It is the student's obligation to provide faculty members with notice of the dates they will be absent for religious holy days, preferably before the beginning of classes but no later than the end of the first three class days. Absences due to observance of religious holy days not pre-arranged within the first three class days may be considered unexcused and there is no obligation to allow any make up work, including examinations. Missing a class due to travel plans associated with a particular religious holy day does not constitute an excused absence. The University's complete Religious Holy Day Policy can be found in the Bulletin.

Our class drive

ALL MATERIALS WILL BE AVAILABLE HERE:
https://www.dropbox.com/sh/eyrfu4tumh8hwap/AAD8C2Csa8GhblIMSUL1ivEVa?dl=0

Required readings/videos



TEXTBOOK: The Functional Art Alberto Cairo
I will reimburse you for the royalties that I get ($2 per book)

Other required readings:
https://www.dropbox.com/sh/m84lh07ngnwq1ag/AACpfs3Wgy7Y9342fDMijqcha?dl=0

Creating Maps, Charts and Infographics with Adobe Illustrator (video).
You will have access to these video tutorials for free

Software
We will use these tools:
Adobe Illustrator (any version)
Quadrigram: http://www.quadrigram.com/
Inzight: https://www.stat.auckland.ac.nz/~wild/iNZight/index.php
Yeeron: http://www.stat.ucla.edu/~jeroen/ggplot2/

USB flash drive / exernal Hard Drive / Cloud storage
You must back up your files on a regular basis.
No deadline can be missed due to loss of data.

Assignments and grading

Grading

This is a project-oriented course. Therefore, grading will be based on several exercises, and on a quiz about the textbook, the additional mandatory readings, and the lectures

Components

	Value
First weeks exercises*	50
Quiz	150
Project 1: Charts and Maps	250
Project 2: Storytelling with data	250
Project 3: Final project	300
Total	1,000

*You will get the full 50 points if you complete all assignments in the first weeks of class, including critiques, software exercises, etc.

If any of the exercises isn't completed properly, these 50 points will be lost.

Scale

Points	Grade
950-1,000	A
920-949	A-
890-919	B+
840-889	B
800-839	B-
770-799	C+
730-769	C
700-729	C-
680-699	D+
630-679	D
600-629	D-
599 and below	F

A note on projects

I will give you detailed guidelines for each project right before we begin working on it. Here you have a summary of what we'll do:

Project 1: A static display based on data I will provide, combining several statistical charts and data maps.

Project 2: A web-based visual explanation about a topic I will propose.

Project 3: You will have to design a multi-component infographic (static or interactive) based on a topic of your choice

I reserve the right to adjust the final grade according to class participation, attendance, overall quality of work, etc.

Assignments and grading

Grading criteria

There are several expectations that you should meet in order to get a high grade. These are the generic grading criteria I will be using for the projects:

1. Every project must be completed on time.
2. Spatial organization, structure of the elements, informative value of the display.
3. Thoughtful use of color and type.
4. Aesthetic design choices in general.
5. Creativity.

I will include the specific grading criteria in the guidelines for each project.

Meetings with Univisión/Fusion

During the semester, I will organize three visits to the newsroom of Univisión / Fusion. The goal is to meet with the teams that produce interactive graphics and visualizations, and talk about current and future projects. To attend these meetings, you will need to add your name, e-mail address, and class number to this spreadsheet:

https://docs.google.com/document/d/1dshQW3e2DiSakBgmWGP_aN1UDRLSNmUGuCHkNZ-RRs8/edit?usp=drive_web

Also, let me know if you need a ride. Please notice that space is limited, so be very serious about being at Univisión / Fusion on time (it's in Doral.) If you cannot attend for some reason, let me know immediately, so I can let other students in.

Talks and VizUM

On Tuesday, September 8, at 7.30PM there will be a Hacks & Hackers visualization event at the School of Communication. Students who have taken this class in previous semesters will present about their projects. Attendance is HIGHLY recommended, as you can get a good idea of what will be expected from you. Sign up here:

http://www.meetup.com/Hacks-Hackers-Miami/events/222172493/

It is very likely that we'll get some invited speakers during the semester. One of them may be David McCandless. See his TED talk:
http://www.ted.com/talks/david_mccandless_the_beauty_of_data_visualization?language=en

On Thursday, November 12 (6PM) we'll have the VizUM Symposium. This is an event for the whole UM community. Invited speakers are Google's Fernanda Viégas and Martin Wattenberg (http://hint.fm/) and Lynn Cherny (http://ghostweather.com/)

Course calendar

Our schedule may change slightly depending on class needs, although I will do my best to stick to the plan below. I will announce any change to the calendar in advance.

August	Tuesday 25	***Presentation: Introduction to the class***
	Thursday 27	***Presentation: What visualization is*** **FOR THE WEEKEND: Illustrator Lessons 1, 2, and 3**
September	Tuesday 1	***Presentation: Principles of visualization I: Truthful***
	Thursday 3	***Presentation: Principles of visualization II: Truthful (cont.)*** **FOR THE WEEKEND: Illustrator video lesson 4 (charts and maps)**
	Tuesday 8	***Presentation: Principles of visualization III: Functional*** 7.30PM: Hacks and Hackers event: http://www.meetup.com/Hacks-Hackers-Miami/events/222172493/
	Thursday 10	***Presentation: Principles of visualization IV: Functional (cont.)*** **FOR THE WEEKEND: Illustrator video lessons 5, 6, and 7** Non-graded exercise: Guidelines
	Tuesday 15	***Presentation: Principles of visualization V: Beautiful and insightful***
	Thursday 17	***Presentation: Principles of visualization VI: Beautiful and insightful (cont.)*** **FOR THE WEEKEND: inZight and Yeeron tutorials**
	Tuesday 22	***Presentation: Principles of visualization VII: Trends***
	Thursday 24	Work on non-graded exercise (**due on Sunday 27**) **FOR THE WEEKEND: Quadrigram tutorials** Project 1 guidelines
	Tuesday 29	Project 1 **QUIZ: Textbook (chapters 1-9), mandatory readings, and lecture slides**
October	Thursday 1	Project 1
	Tuesday 6	Project 1
	Thursday 8	FALL RECESS (No Class)
	Tuesday 13	Project 1
	Thursday 15	Project 1 Project 2: Guidelines **PROJECT 1 DUE ON Sunday 18 at night**

Course calendar

	Tuesday 20	(Project 2)
	Thursday 22	(Project 2)
	Tuesday 27	Meeting with David McCandless (http://www.informationisbeautiful.net/)
	Thursday 29	Project 2
November	Tuesday 3	Project 2
	Thursday 5	Project 2
	Tuesday 10	Project 2 **PROJECT 2 DUE Wednesday 11 at night**
	Thursday 12	Project 3 **At 6PM: VizUM Conference: Fernanda Viégas, Martin Wattenberg, Lynn Cherny**
	Tuesday 17	Project 3
	Thursday 19	Project 3
	Tuesday 24	THANKSGIVING (No class)
	Thursday 26	THANKSGIVING (No class)
December	Tuesday 1	Project 3
	Thursday 3	Project 3 **PROJECT 2 DUE Sunday 6 at night**
	Tuesday 8	**Final critique sessio**n (THERE'S NOT AN EXAM FOR THIS CLASS)