

LMC 3705: Principles of Information Design

Skiles 318

10:05 - 10:55am MWF

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Office hours: W 2 - 5pm

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Prerequisites

Undergraduate Semester level CS 1301 Minimum Grade of C or Undergraduate Semester level CS 1315 Minimum Grade of C or Undergraduate Semester level CS 1321 Minimum Grade of C or Undergraduate Semester level CS 1371 Minimum Grade of C) and (Undergraduate Semester level LCC 2100 Minimum Grade of C or Undergraduate Semester level LCC 2700 Minimum Grade of C.

Course Overview

This course will focus on information design as it relates to the communication of data and meaning. Students will utilize skills in computational media to create designs which tell the story behind the data, making the complex understandable. We will look at various implementations of information design in graphic design, animated data visualizations, public displays and exhibits, and interactive design. Class content will consist of lectures, discussions, readings, and project assignments. Project work will give students the opportunity to explore aspects of information design in detail and create design solutions. The course will include discussions of art, design, human-computer interaction, and science and technology studies. Students are expected to attain necessary software skills for project work outside of class time.

Core Areas and Attributes

This course is not listed in Core Area C: Humanities, Fine Arts, and Ethics in the Core Curriculum. In the Bachelor of Science Computational Media Degree Requirements, Interaction Design & Experimental Media Thread, it is one of six options for completing three Design or Communication courses (LMC 2730, 3206, 3406, 3705, 3710, and 4730).

Course Objectives

By the end of the course, students will:

conduct research, gather data, and design media for the meaningful presentation of

information.

understand the principles of design and utilize them in creating effective information design projects.

use skills in computational media to collect and shape data sets for information design projects.

understand the various types and uses of information design to make intelligent choices in design.

understand processes for designing and developing information design projects.

project future uses of information design based on current and emerging trends.

Course Format

3 class meetings per week, mixed format, lectures, discussions, lab/studio time.

Required Readings

Resources which are required to successfully complete the course.

Lipton, Ronnie. *The Practical Guide to Information Design*. John Wiley & Sons, Inc. Hoboken, NJ, 2007.

Tufte, Edward. *Envisioning Information*. Graphics Press, Cheshire, Conn., 1990.

Yau, Nathan. *Visualize This, The FlowingData Guide to Design, Visualization and Statistics*. Wiley Publishing, Inc. Indianapolis, IN, 2011.

Supplementary Readings

Resources which are useful in the course and beyond, but are not required to be purchased for the course.

Lupton, Ellen. *Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students*. Princeton Architectural Press, New York, NY, 2004.

Tufte, Edward. *The Visual Display of Quantitative Information*. Graphics Press, Cheshire, Conn., 2001.

Other readings from online sources and pdf files will be included in the resources area of T-Square, to be updated throughout the semester.

Software

Software which will be useful in the class included design and Imaging: InDesign, Illustrator, Photoshop, and/or equivalent, i.e. open source software: InkScape, Gimp etc.

Web and Scripting: HTML, CSS, PHP, MySQL, JavaScript, Processing, Dreamweaver, Flash (ActionScript), and/or equivalent, i.e. HTML editors and other tools. Depending on the assignment or project, you may decide to use other programming/scripting languages which you are more comfortable with.

Please note: This is not a class on software. Students are expected to attain necessary software skills for project work outside of class time.

Grading Opportunities

The final course grade will be calculated from the following areas:

20% assignments
70% projects
10% participation

There will be four graded assignments which will each be worth 5% of the final grade. Assignments are given for work in class and/or for one week or less in duration.

There will be three graded projects which will be worth 10% (two weeks duration), 20% (three weeks duration), and 40% (seven weeks duration) of the final grade.

Grading Standards

Letter Grades

A (90-100) - Excellent
B (80-89) - Good
C (70-79) - Average
D (60-69) - Below Average (passing)
F (59 or below) - Failure

Criteria for evaluation of assignments and projects:

Quality of work relating to concepts, ideas and research, as well as effective and creative use of tools for required tasks. All graded work assignments, and projects, will clearly state the objectives and areas of grading. This information will be included in the assignment, or project description on T-Square. Any feedback for graded work will communicate how a student

performed and how the grade was calculated following these criteria. If there is any question during the semester as to why a grade was given or how it was determined, please see the instructor during office hours or other scheduled appointment time.

Attendance Policy

Class attendance is critical to understanding the subject matter and successfully completing the course.

Missing class without the following valid excuses will result in an unexcused absence:

family emergency

illness and can provide a doctor's note or equivalent from Stamps Health Services.

GT extracurricular activity and can provide note from coach or advisor.

internship or job interview and can provide documentation from company.

You must communicate with the instructor and provide documentation within one week for an absence to be counted as excused.

5 unexcused absences are allowed for the semester.

At 6 unexcused absences, your course grade will drop by one letter grade, and will continue to drop by one letter grade for every 3 unexcused absences beyond 6.

Be on time for class and stay for the duration of class session.

Attendance at critiques is very important - you will be made aware of the dates for critiques well in advance via the class schedule and announcements from the instructor. Thoughtful participation in critiques is a key component of your participation grade in the course.

Academic Honesty and Student Conduct

Honor code: You are asked to abide by the GT honor code in this class. Information is available at: <http://www.honor.gatech.edu>.

The issues of plagiarism and responsibilities in collaborative assignments/projects are especially important. For details, please see: <http://www.honor.gatech.edu/plugins/content/index.php?id=9>

Communications Center

From the Communications Center website:

The Communication Center, located in Clough Undergraduate Learning Commons 447, promotes excellence in WOVEN communication—written, oral, visual, electronic, and nonverbal—in ways that enable members of the Georgia Tech community to have greater success in their academic and workplace careers, as well as in their civic and community lives. Trained professionals and peer tutors are available to provide assistance to students.

More information is available at: <http://www.communicationcenter.gatech.edu>

Students with Disabilities

Learning support services for students with disabilities is provided.

Students should self-report to the Access Disabled Assistance Program for Tech Students at:

220 Student Services Building
Atlanta, GA 30332-0285
404.894.2564 (voice) or 404.894.1664 (voice/TDD)

Information about ADAPTS is located at: <http://www.adapts.gatech.edu>.

Please Note: This Syllabus is subject to change during the course – the instructor will notify students of changes.

Schedule

updated 3.31.14

Week 1

Monday January 6

Introduction to Information Design, overview of course

Assignments:

for Wednesday, next class:

Read:

Visual Function, pp 1 – 27, Mijksenaar
Google Books: books.google.com/books?isbn=9064503036

Good Design in the Digital Age, Richard Buchanan (pdf file in Resources of T-Square).

Blog Entry:

Write a short blog entry in your T-Square Blog answering questions from Introductory Survey assignment in Assignments on T-Square. This is not a graded assignment.

Wednesday January 8

Discussion of readings

Introduction to Information Design

Assignments:

for Friday, next class:

Read:

"Information as Cultural Category", Dourish, Brewer, Bell (pdf file in Resources of T-Square).

Friday January 10

Introduction to Information Design continued.

Assignments:

for next week:

Read:

Tufte, chapter 1 and 2, Lipton Chapter 1.

Week 2

Principles of Design for Information Design

Monday January 13

Principles of Design for Information Design

Tufte chapter 1 - Escaping Flatland

Wednesday January 15

Principles of Design for Information Design

Tufte chapter 2 - Micro/Macro Readings

Friday January 17

Principles of Design for Information Design

Tufte chapter 3 - Layering and Separation

Lipton, chapter 1 - How Humans (almost) universally perceive

Week 3

Type and Typography

Assign Project 1

Monday January 20

no class - MLK Jr. Day Holiday

Wednesday January 22

Type and Typography

Lipton, chapter 3 - How to work with type and layout

Friday January 24

Type and Typography

Lipton, chapter 4 - How to write clearly

Week 4

Visualization (Computational Media and Data Visualization)

Monday January 27

Lipton, chapter 5 - How to use color meaningfully

Wednesday January 29

Lipton, chapter 6 - How to make pictures that inform
class cancelled due to weather

Friday January 31

Lipton, chapter 7 - Design, label, and caption diagrams clearly
work time for Project 1

Week 5

Monday February 3

Project 1 due

Critique (due by start of class Wed)

Wednesday February 5

Assign Project 2

Friday February 7

Yau, chapter 1, Telling Stories with Data

Week 6

Interactive Elements

Monday February 10

Yau, chapter 2, Handling Data

Wednesday February 12

Yau, chapter 3, Choosing Tools to Visualize Data

class cancelled due to weather

Friday February 14

Assignment 1 - Introduction to d3, Project 2 ideas and initial data. Due Monday, end of day.

Week 7

Monday February 17

Yau, chapter 5, Visualizing Proportions with d3 (protovis)

Assignment 1 due by end of day

Description of initial concept for Project 2 along with sample data due with Assignment 1.

Wednesday February 19

Yau, chapter 4, Visualizing Patterns over Time with R

Decide if Project 2 will be a time based project or a proportions project.

Friday February 21

Studio time for working on project 2.

Data and visualization tool for project 2 selected.

Week 8

Monday February 24

work time for Project 2

Wednesday February 26

work time for Project 2

Friday February 28

Project 2 Due

Discuss / Critique Project 2

For Next Week: Read, Chapter 6, Nathan Yau, Visualize This...
and install R if you have a computer.

Week 9

Monday March 3

Project 3 Milestones

Wednesday March 5

Assign Project 3

Read: Tufte, The Visual Display of Quantitative Information,
Chapter 2, Graphical Integrity for Friday

If you have a laptop that can run R, please install and bring to class, Friday.

Friday March 7

Start Assignment 2 - Open Refine, R, Illustrator

Week 10

Monday March 10

Assignment 2 Due

Project 3: Directions provided on formatting of Brief due Friday, March 14

Wednesday March 12

work on Project 3 Brief due Friday

Friday March 14

Project 3: Brief due

Tufte, Chapter 4, Small Multiples

Week 11 Spring Break

Monday March 17

no class - Spring Break

Wednesday March 19

no class - Spring Break

Friday March 21

no class - Spring Break

Week 12

Monday March 24

Project 3: Receive feedback on Brief

Directions provided on how to post first designs and format of critique / feedback for March 31

Maps and Mapping

Wednesday March 26

Maps and Mapping

Tufte, chapter 5, Color and Information

Friday March 28

work time for project 3

Assignment 3 due - noon

Week 13

Monday March 31

Project 3: Critique / Feedback for first designs

Wednesday April 2

Tufte, chapter 6, Narratives of Space and Time

Friday April 4

no class meeting

work time for project 3

Week 14

Monday April 7

Project 3: Directions provided on format of critique / feedback for April 14

Wednesday April 9

work time for project 3

Friday April 11

work time for project 3

Week 15

Monday April 14

Project 3: Second Design critique / feedback

Example provided for format of Presentation Brief

Directions provided for posting of final project on April 28

Select Groups for Presentations

Wednesday April 16

work time for project 3

Friday April 18

Project 3: Post Presentation Brief to T-Square wiki

Week 16

Monday April 21

Group 1 Presentations

Wednesday April 23

Group 2 Presentations

Friday April 25

Group 3 Presentations

Exam Week

April 28 - May 2

Final Project due April 28 10am