COURSE INFORMATION

Class Meeting Time: Lecture: 1.5 hr   Tutorial: 1.5hr

Location:

Instructor: Erick Villagomez

Office Hours:

SHORT COURSE DESCRIPTION

This course is an exploratory journey through the vast world of visualizing the city. Students will gain an understanding of the types and hierarchies of visualizations of the city and how to interpret them and use them to read the city.
This course is open to all UBC students in 2nd year and above, regardless of prior experience.

COURSE FORMAT

Course will meet twice a week for 1.5 hours each session. Course material will be structured using a combination of presentations and in-class exercises, discussions and tutorials. Class sessions will emphasize visual material, which will be guided by course instructors but also supplied, informed and analyzed by students. Students will see images, watch videos and listen to audio works about the city.

COURSE OVERVIEW

This course is an exploratory journey through the vast world of visualizing the city. How has our way of understanding and representing cities evolved from old parchment maps to dynamic real-time data capture with user-interactive visualizations of urban regions? How do we represent spatial data and what do we use, when and how?

Broadly, students will gain a historical understanding of how the city has been represented visually, as well as the fundamentals of representation types and information design, in the service of reading and interpreting visualizations of the city. Future creators and consumers of city visuals will be exposed to the data sources and production processes behind a wide variety of representations including; videos, maps, diagrams, plans, charts, fly-through animations, interactive graphics, comics

and music. A series of exercises—experiential and otherwise—will allow students to comprehend and use the principles for creating clear and powerful graphic narratives of the city.

The following summarizes the larger sections covered in the course:

A history of settlement/city representation - Although this will be delivered continuously (as precedents will be shown throughout the course), giving students a sense of how people have represented the built landscape over time will be an integral part of the course content. This will ground more recent works within a lineage of attempts to capture the complexity of built landscapes, and related information, at a number of scales. It will also allow students to understand representational relationships across cultures and eras.

Fundamentals of representation types - This includes an understanding of drawing types—i.e. what is a cross-section? what is a plan? what is a paraline drawing? etc.— and what type of information each excels at conveying as well as its limitations. This will also cover other more popular representation types—i.e. maps, etc.—but the focus will be on representation types not commonly known. This understanding will be the building blocks for more in-depth discussions about, and interpretations of, city visuals.

Fundamentals of information/graphic design – This will focus on the principles of organizing and visualizing complex information. The pioneering work of Edward Tufte and Richard Saul Wurman will be the highlighted. This element will give students a basic understanding of how to put a variety of information together in a coherent way, giving them a basis for critically analyzing and constructively critiquing city visuals.

Application – As a whole, the aspects described above give students a solid foundation in terms of reading, interpreting and critiquing city visuals. But reading and learning about design principles, history, criticism, etc. is different than applying that knowledge, and this course will seek to round out that base information through a series of creative exercises that synthesize and demonstrate their foundational knowledge.

This course has a number of learning objectives and offers students a series of fundamental tools and principles for engaging, interpreting and representing visual information about the city.

LEARNING OUTCOMES

At the end of this course, students will have achieved the following:

- Understand the general history of city representations
- Read and interpret 2-dimensional and 3-dimensional information about the city
- Understand, read and interpret fundamentals of orthographic drawings of the city
- Understand the fundamentals of clear information design

- Understand key precedents of city visualizations
- Articulate a graphic assessment of the physical features of an urban space
- Interpret and explain city information at different scales
- Undertake basic information design about the city at a variety of scales (street, block, neighbourhood, region, etc.)
- Critical observation and appreciation of the everyday urban environment
- Apply the foundational knowledge about reading, interpreting and critiquing city visuals through the a series of a exercise

ADDITIONAL COURSE REQUIREMENTS

Given that the course requires some understanding of the built environment, students will be expected to conduct research outside of class time in the form of observation and mapping of urban settings as assigned and/or selected in class. Students will also be expected to conduct typical library and web-based searches

ATTENDANCE

Regular attendance and punctuality are *essential* for successful completion of course requirements. Because of the visual and interactive nature of the course format, late arrivals, early departures, prolonged breaks and absences will compromise students' ability to successfully complete course assignments and may lead to poor overall performance.

EVALUATION CRITERIA

- This course is graded on a numeric (percentage) grade.
- The following is a sample of possible assignments that students will be required to complete:
- Lecture Visual 5%
    - Students will be asked to contribute a city visual slide and explanation based on a specific theme.

        Learning objectives achieved through this requirement are
        - Understanding the city representations through a specific theme.
        - Reading and interpreting 2-dimensional and 3-dimensional information about the city
        - Understanding reading and interpreting different representation types
        - Contributing precedents of city visualizations

- Flix 5%
    - Students will be asked to compare, analyse and interpret the representation

of cities through specific films.

Learning objectives achieved through this requirement are
▪ Reading and interpreting city representations in film.
▪ Comparing film narratives through its visuals.

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● Mid-term written exam 10%
▪ Students will be asked to identify, interpret and comment on images and visuals.

Learning objectives achieved through this requirement are
▪ Understanding the general history of city representations
▪ Reading and interpreting 2-dimensional and 3-dimensional information about the city
▪ Understanding reading and interpreting fundamentals of orthographic drawings of the city
▪ Understanding key precedents of city visualizations

● Visualizing Yourself 30%
▪ Students will be required to gather data and information about themselves over a set period of time and—using the wonderful work of Nicholas Feltron as a precedent—create a 'board' or document that presents themselves through series of maps, statistics and graphics.

Learning objectives achieved through this requirement are
▪ Articulating a graphic assessment of the physical features of an urban space
▪ Interpreting and explaining city information at different scales
▪ Articulate a graphic assessment of the complex information in urban space

● Interrogating Visuals - 20%
▪ Students choose a major city, research different contemporary visual representations, and provide a critical commentary on each visual selected— what it tells us, and what it does not.

Learning objectives achieved through this requirement are
▪ Understanding the fundamentals of clear information design
▪ Interpret and explain city information at different scales

● Participation - 10%
● Participating in discussions during lecture and tutorials, including group critiques, and informal presentations.

Learning objectives achieved through this requirement are
▪ Exaplaining and applying the lessons learned about city visuals within lectures.
▪ Interpreting and explain city visuals information at different scales

- Interrogating Narratives - 20%

  - Using Alexandra Horowitz's *On Looking: A Walker's Guide to the Art of Observation* as a starting point, students will be asked to tell a story about walking around their block through a visual narrative, using at least 3 different types of representation.

  Learning objectives achieved through this requirement are
  - Undertake basic information design about the city at a variety of scales (street, block, neighbourhood, region, etc.)
  - Critical observation and appreciation of the everyday urban environment

GRADING GUIDELINES

UBC courses are graded on a percentage basis. Corresponding letter grades are assigned automatically by the Registrar. (See *UBC Calendar >> Campus-wide Policies and Regulations >> Grading Practices* for additional information.)

Percentage (%)	Letter Grade
90-100	A+
85-89	A
80-84	A-
76-79	B+
72-75	B
68-71	B-
64-67	C+
60-63	C
55-59	C-
50-54	D
0-49	F (Fail)

REQUIRED TEXTBOOKS

There are no required texts for this course.

RECOMMENDED TEXTBOOKS

The history of city representations is vast and there are many potential recommendations. That said, here are a few one might find helpful:

- Michael Abrams, *The Art of City Sketching: A Field Manual*
- Francis Ching, *Architectural Graphics*
- Mohsen Mostafavi, *Cartographic Grounds: Projecting the Landscape Imaginary*
- Eduard Imhof, *Cartographic Relief Presentation*
- DK, *Great City Maps*
- Aaron Lao, *Planning Visually* (Thesis)
- Edward Tufte, *Envisioning Information*
- Edward Tufte, *Visual Display of Quantitative Information*
- Design Richard Saul Wurman, *Information Anxiety*
- Dona M. Wong, *The Wall Street Journal Guide to Information Graphics: The Dos and Don'ts of Presenting Data, Facts, and Figures*

COURSE SCHEDULE

A *tentative* schedule of the course is provided, as follows. A more detailed and accurate schedule will be given at the outset of the class:

INTRODUCTION
- **Week 1**
  - Introduction and course overview
  - Projections, distortions and depictions – 2D & 3D General Overview

  READING and REFERENCES
  - Michael Abrams, *The Art of City Sketching: A Field Manual*
  - Francis Ching, *Architectural Graphics*
  - Lorraine Farrelly, *Drawing for Urban Design*

MODULE 1 – REPRESENTATION: PROJECTIONS/DISTORTIONS/DEPICTIONS &

TECHNIQUES

- ➢ **Week 2**
  - o Projections/distortions/depictions & techniques – 2D Orthographic Set
  - o Projections/distortions/depictions & techniques – 3D Paraline/Perspective

  ### *READING and REFERENCES*
  - Michael Abrams*, The Art of City Sketching: A Field Manual*
    Francis Ching, *Architectural Graphics*
  - Lorraine Farrelly, *Drawing for Urban Design*
  - Paul Lewis et al., *Manual of Section*

- ➢ **Week 3 –**
  - o Projections/distortions/depictions & techniques – Line weights/types
  - o Projections/distortions/depictions & techniques – contours/isobaths, hachure/hatch, shaded relief, land classification
  - o Projections/distortions/depictions & techniques – Figure-ground, cross-section, line symbol, conventional sign

  ### *READING and REFERENCES*
  - Mohsen Mostafavi, *Cartographic Grounds: Projecting the Landscape Imaginary*
  - Eduard Imhof, *Cartographic Relief Presentation*
  - Sanjay Jeer, "Traditional Color Coding for Land Uses"
  - Eric j. Jenkins, *Drawn to Design: Analysing Architecture Through Freehand Drawing*

- ➢ **Week 4**
  - o Representation overview
  - o Mid-term exam

MODULE 2 – CONTEXT: HISTORY OF CITY REPRESENTATION

- ➢ **Week 5 –**
  - o Pre-print era: cartographic depictions and classical renderings
  - o Print era: production, photo production and mass production

  ### *READING and REFERENCES*
  - Brian M. Ambroziak and Jeffrey R. Ambroziak, *Infinite Perspectives: Two Thousand Years of Three-Dimensional Mapmaking*
  - DK, *Great City Maps*
  - Jeremy Black, *Metropolis: Mapping the City*

- Eduard Imhof, *Cartographic Relief Presentation*

➢ **Week 6** –
  o The city in film: From Hollywood backdrops to urban documentaries
  o The city through photos & visual art

  READING and REFERENCES
  - John Berger, *Ways of Seeing*
  - Neil Bingham, *100 Years of Architectural Drawing*
  - Lebbeus Woods, *Radical Reconstruction*

➢ **Week 7**
  o Urban cartography: transit maps, psychogeography, walking, etc.
  o Digital era: image tooling and retooling

  READING and REFERENCES
  - Peter Bosselman. *Representations of place*
  - Peter Chasseaud and The Imperial War Museum, *Mapping the Second World War: The history of the war through maps from 1939 to 1945*
  - Mario Gandelsonas, *X-Urbanism: Architecture and the American City*
  - Steven Johnson, *The Ghost Map: The Story of London's Most Terrifying Epidemic--and How It Changed Science, Cities, and the Modern World*
  - Mark Ovenden, *Transit Maps of the World*
  - Denis Wood, *The Power of Maps*

➢ **Week 8**
  o Geographic Information Systems and spatial layering
  o Realistic capture: photography, satellite imagery and street views

  READING and REFERENCES
  - Alan Berger, *Drosscape: Wasting Land in Urban America*
  - James Corner, Alex S. MacLean, and Denis Cosgrove, *Taking Measures Across the American Landscape*
  - Stephen Graham, *Vertical: The City from Satellites to Bunkers,* Introduction and Chapter 1
  - Ian McHarg, *Design With Nature*

➢ **Week 9**
  o 3D Digital modeling and animation: functional & fantastical depictions
  o Place based gaming: Pokémon go and digital scavenger hunts

READING and REFERENCES
- Harald Belker, Steve Burg and Scott Robertson, *Concept Design 2: Works from Seven Los Angeles Entertainment Designers and Seventeen Guest Artists*
- Simon Stalenhag, *Tales From The Loop*
- Sparth, *Structura 3: The Art of Sparth*
- Feng Zhu, FZD School youTube video on process

➢ **Week 10**
- o Digital asset mapping and rating: from passive tracking to active yelping
- o Community and asset mapping

READING and REFERENCES
- Jan Gehl and Brigitte Svarre, *How to Study Public Life*
- Aaron Lao, *Planning Visually* (Thesis)
- Lisa Peattie, *Planning: Rethinking Ciudad Guayana*

➢ **Week 11** –
- o Real estate branding and marketing
- o Connected era: multitude of sources and consolidated outputs

READING and REFERENCES
- James Corner, Alex S. MacLean, and Denis Cosgrove, Taki*ng Measures Across the American Landscape*
- Anuradha Mathur and Dilip da Cunha, *Mississippi Floods: Designing a Shifting Landscape*

MODULE 3 – BRINGING IT TOGETHER: VISUAL COMMUNICATION & INFORMATION DESIGN

➢ **Week 12**
- o Fundamentals of visual communication
- o Infographics and the visual translation of data

READING and REFERENCES
- William Lidwell, Kritina Holden, Jill Butler - *Universal Principles of Design*
- Edward Tufte, *Envisioning Information*
- Edward Tufte, *Visual Display of Quantitative Information*
- Morioka and Stone, *Color Design Workbook: A Real World Guide to Using Color in Graphic* Design Richard Saul Wurman, *Information Anxiety*

- Steven Heller and Rick Landers, *Infographics Designers' Sketchbooks*

➢ **Week 13**
  o Visualization in urban planning: data sources, platforms and models
  o Visualization in urban planning: citizen participation and preference voting

READING and REFERENCES
- Sandra Rendgen (and Julius Wiedemann, Editor), *Information Graphics*
- Dona M. Wong, *The Wall Street Journal Guide to Information Graphics: The Dos and Don'ts of Presenting Data, Facts, and Figures*
- Nathan Yau, *Visualize This: The Flowing Data Guide to Design, Visualization, and Statistics*

➢ **Week 14**
  o Infographics and social media: how to tell truth from fiction
  o Whose city is it? Visualization as power in urban politics

READING and REFERENCES
- Stuart Allan and William G*. Loy, Atlas of Oregon*
- Jacques Bertin*, Semiology of Graphics: Diagrams, Networks, Maps*
- Carl Liungman*, Dictionary of Symbols*
- Mark Monmonier*, How to Lie with Maps*
- David McCandless*, Visual Miscellaneum: The Bestselling Classic, Revised and Updated: A Colorful Guide to the World's Most Consequential Trivia*.

SUPPLEMENTARY MATERIALS

UBC has numerous research, pedagogical and health resources available to students. These include The Centre for Teaching, Learning and Technology, the Irving K. Barber Learning Centre, the Writing Centre, Student Health Services and Student Counselling Services. You are encouraged to make use of these resources.

SPECIAL NEEDS

You are requested to inform the instructor as soon as possible if you have special needs and require accommodation of any kind. Please visit http://www.students.ubc.ca/access/ for more information on campus resources.

ACADEMIC INTEGRITY

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences. (See *UBC Calendar >> Campus-wide Policies and Regulations >> Discipline for Academic Misconduct* for additional information.)