



Course Number: DSGN 213

Course Name: Introduction to Visualizing Complexity

Classroom: [REDACTED]

Instructor: Catherine Hamel, Jessie Andjelic

- Email: chamel@ucalgary.ca; jessie.andjelic2@ucalgary.ca
- Office Hours and Location: Student meetings outside class time are by appointment.
- Instructor Email Policy: Instructors will respond to emails sent via students' @ucalgary emails as soon as possible, usually within 48 hours.

Teaching Assistant: Soumya Shashidharan

Email: soumya.shashidharan@ucalgary.ca

Class Dates: Mandatory In-Person Mondays and Thursdays, Winter 2024, 2:00pm to 3:50pm

Course Description: Course Hours: 3 units; (0-4)

Academic Calendar description: <https://www.ucalgary.ca/pubs/calendar/current/design.html#48339>

if looking is an act, seeing is a practice.

Design 213, *Introduction to Visualizing Complexity*, is the second foundational course in visualization in the Bachelor of City Design and Innovation program.

Mapping and understanding patterns within complex networks and systems is becoming an increasingly important skill as a designer in contemporary urban environments. The ability to observe, abstract, and make meaning from information is critical to create and analyze designs in relation to urban ecologies. Visualizing data sets and diagramming become pathways for design, where ideas and visualizations enrich and inform one another in a design process.

This course will present two distinct approaches: the first is to visually abstract information from complex systems and the second is to build up visual complexity through singular and abstracted layers of information. These two contrasting approaches support students in critical thinking through visualization and to communicate design intents to others. Tutorials and lectures will be provided to expose students to diverse medias, as well as to develop specific technical abilities in the creation of analog, digital, and hybrid visualizations. Assignments will be completed in pairs and individually, and projects will be discussed in group formats.

Requisites: See [Section 3.3.5](#) of the Academic Calendar for more information regarding School of Architecture, Planning and Landscape courses.

- Prerequisite (s): Admission to the Bachelor of Design in City Innovation program & [Design 211](#) Introduction to Visual and Communication Studies
- Corequisite(s): [Design 203](#). Design Thinking and the City, Studio II

Course Delivery:

- In-person Delivery

Course Learning Outcomes:

Upon completion of this course, students will know and be able to:

- Understand visualization as a means for critical thinking and creative exploration
- Generate and evaluate possibilities through the design process
- Develop skills to visually analyze conditions ahead of a design intervention
- Organize relationships, limitations, and other qualities that can impact a design
- Understand the role of diagramming in abstracting complex information
- Begin to build up complex visualizations through layers
- Communicate design concepts to other people

Learning Resources:

- Required readings, textbooks, and learning materials:
 - References will be provided with specific project outline
- Technology requirements:
 - To successfully engage in their learning experiences at the University of Calgary, students taking online, remote, and blended courses are required to have reliable access to the following technology:
 - A computer with a supported operating system, as well as the latest security, and malware updates;
 - A current and updated web browser;
 - Webcam (built-in or external);
 - Microphone and speaker (built-in or external), or headset with microphone;
 - Current antivirus and/or firewall software enabled;
 - Broadband internet connection
 - Most current laptops will have a built-in webcam, speaker and microphone.
 - [Student IT Resources](#)

- To accomplish course work for DSGN 213 students require access to current versions of the following software and tools:
 - Adobe Creative Suite (Photoshop, InDesign, Illustrator, Premiere)
 - Camera (a contemporary smartphone, DSLR, or SLR)
 - ArcGIS Pro (link to download ArcGIS Pro through the UCalgary account.
https://ucalgary.service-now.com/kb_view.do?sysparm_article=KB0033256)
 - Rhinoceros
- BDCI Makerspace Training Requirement:
 - If a course requires the use of the BDCI Makerspace, students must complete all relevant online University of Calgary safety courses and the online Trajectory Safety training course to be granted access to the BDCI Makerspace.

Special Budgetary Requirements:

- The course requires the same 'BDCI Toolkit' required by the Fall 2023 prerequisite DSGN 211 to accomplish its pedagogical outcomes.
- Students will also be required to obtain materials and supplies for models, drawings and/or presentations over the semester. Such materials could be items such as card stock, millboard, foam blocks, basswood, or other such goods used in drawing, modelling and presentations. These materials will be available within the School and/or at local art supply shops. Students will be responsible for securing such materials for use in their design projects.

Additional Classroom Conduct and Related Information:

- **BDCI Conduct Code:** The BDCI Studio and other SAPL/University-provided facilities and equipment are governed by the [University's Student Non-Academic Misconduct Policy](#). Professional and courteous behavior is expected at all times. For more information, please refer to [Appendix 1: Prohibited Conduct](#), including the following categories: 1. Protection of Individuals; 2. Protection of Property; 3. Protection of University Functions, Activities and Services; 4. False Information and Identification; 5. Possession or Use of Dangerous Objects, Drugs or Alcohol; 6. Aiding in the Commission of an Offence; 7. Contravention of Other Laws and University Policies; and 8. Failure to Comply with a Sanction.

Assessment Components

The University policy on grading and related matters is described in [F.1](#) and [F.2](#) of the Academic Calendar. In determining the overall grade in the course the following weights will be used:

Assessment Method	Description	Weight	Assignment Type
Portraits 01-05	Sketchbook	20%	Single
P01 Guidebook	Community Portraits	20%	Pairs
P02 GIS Mapping	Geographic Information Systems	15%	Single
P03 Profiling	City Profiling Tools P03a + interim review 15% P03b + Pamphlet 20%	35% P 03 (a+b)	Pairs Single
Participation	Engagement + Professionalism	10%	

Topic Areas and Detailed Class Schedule*

W01

J m 08 Introduction + **Portrait 01a** Contours
th 11 **General Safety Talk** (Nathan Tremblay) + **Portrait 01** Conversation in a 9 x 9 Grid

W02

m 15 **Portrait 03** Suggestive Cities *due Portrait 01**
th 18 **P01** Community Portraits Guidebook Handout *due Portrait 02*

W03

m 22 Gathering Data & Abstraction / *in-class studio session***
th 25 Quantitative Data & Diagraming / *in-class studio session*

W04

m 29 Qualitative Data & What this diagram missed / *in-class studio session* *due Portrait 03*
F th 01 Visualized Statistics & Other visualizations

W05

m 05 Booklet Creation / Organization / layout / grids / *in-class studio session*
th 08 Printing & Binding

W06

m 12 *Engagement* *due Project 01*
th 15 DSGN 203 Pamphlet Review

W07 READING WEEK

W08

m 26 Studio Gallery Set Up *due printed completed P01 Pamphlet and gallery set up will
for DSGN 203 M 27 Pin Up*

M

th 29 P02 GIS Mapping Handout

W09

m 04 *in-class studio session*
th 07 *in-class studio session* *due Project 02*

W10

m 11 P03a Profiling the City Handout / Portrait 04 The Surface of the City
th 14 *in-class studio session* *due Portrait 04*

W11

m 18 P03b Profiling the City / Portrait 05 Bonus *due Project 03a*
th 21 P03b Profiling the City

W12

m 25 P03b Profiling the City *due Portrait 05*
th 28 P03 interim review *due interim Project 03b*

W13

A M 01 *Easter Monday* / no class
th 04 Reflections *due P03 (a+b)*

W14

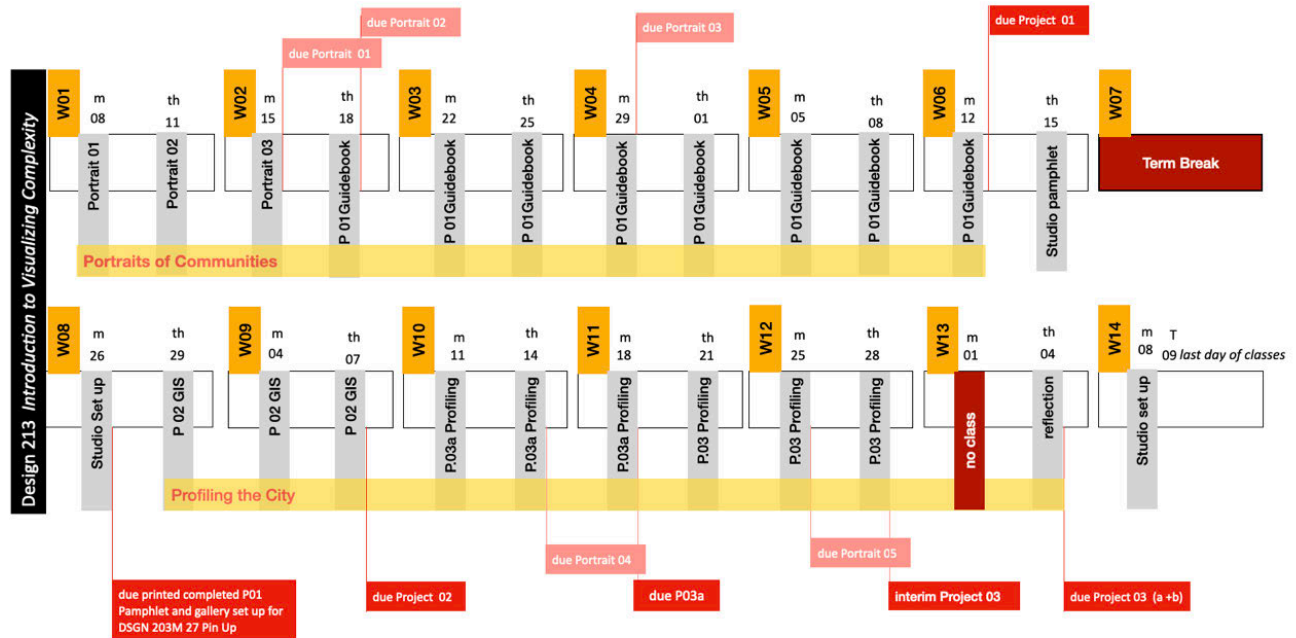
m 08 DSGN 203 Studio Set up

* Subject to adjustments

** in-class studio session can include (but not limited to) small group presentations, group work, individual work review, discussions or lectures, and/ or in-class production time. Attendance is mandatory for the full session.

* all project details will be provided in supplementary project handouts

Class Schedule*



Portrait/ Profile these are faster sketchbook excersises building on in-class thematic lectures

Project these are longer projects with skill building based on in class workshops and developments

Scheduled Out-of-Class Activities

There are no scheduled out of class activities for DSGN 213.

Flexible Grade Option (CG Grade)

As per [Section 3.5.1](#) of the Academic Calendar, the School of Architecture, Planning and Landscape will not permit the Flexible Grade Option (CG Grade) for any course offered by the School.

Assessment and Evaluation Information

Assessment in the studio will be based on competency and completeness of assignments, including following requirements for deliverables, adhering to standards for graphics, and meeting quality of design, delineation and communication.

Attendance + Participation Expectations

Students are expected to attend and come prepared to meaningfully engage in all class sessions. This includes producing or preparing content necessary for discussion and contributing to individual and class-wide discussions and/or conversations/assessments with the Course Instructors.

Excused Absences

In the event of an exceptional circumstance (e.g., illness, bereavement, etc.) or an exceptional opportunity (e.g., varsity athletic competition, national conference or awards ceremony, pow wow, etc.) up to four excused absences (for courses that meet twice or more per week) and up to two excused absences (for courses that meet once per week) are allowable per semester before jeopardizing one's own course grade and ability to pass the course. However, any such accommodations must be approved by the Instructors with advance notice by the student.

Unexcused Absences

Attendance at all class sessions and participation in all assessments is mandatory. Unexcused absences in excess of two per semester (for courses that meet twice per week) and one per semester (for courses that meet once per week) are grounds for failure in the course.

Total Number of Absences

The combined total number of excused or unexcused absences per semester cannot exceed four per semester (for courses that meet twice per week) or two per semester (for courses that meet once per week). Any number in excess are grounds for failure in the course.

Guidelines for Assignments

All assignments (e.g., projects, papers, presentations, etc.) must be turned in on time. Late assignments will lose a letter grade every 24 hours after the submission date/time. Late assignments submitted more than four days late constitute automatic failure. Late assignments with a valid excuse, as defined by the University's guidelines or with advance prior notification to the instructors, may be considered without penalty upon review of the student's attendance and participation record.

o Please let your instructors know immediately if you cannot meet the deadlines specified. You may be required to provide supporting documentation, as per [Section M.1](#) of the Academic Calendar to support your request.

Guidelines for Assessment

Attendance and live participation for the entire duration of course assessments are mandatory (e.g., pin up review, midterm review, final review or exam, etc.) and must be completed in person unless otherwise stated. If a student is unable to participate live due to unforeseen circumstances, please inform the Course Instructors in advance. Missed assessments with a valid excuse, as defined by the University's guidelines or with advance prior notification to the instructors, may be considered without penalty upon review of the student's attendance and participation record. Failure to be present for a course assessment as a result of an unexcused absence are grounds for failure in the course.

Guidelines for Submitting Assignments

All assignments must be submitted digitally, to the course D2L Dropbox, and or (MIRO Board) by the specified due date/time. In some cases, hard copies may be required to also be submitted.

Final Examinations

There is no Final Examination in DSGN 213.

Expectations for Writing

<https://www.ucalgary.ca/pubs/calendar/current/e-2.html>

All written components of assignments must use proper grammar and correct spelling. Formatting requirements, as specified by the instructors, must be followed. Citations and references must be consistent and follow guidelines as noted by instructors.

Criteria that must be met to pass:

All assignments are required to be completed and passed in order to successfully complete the studio. In cases where an assignment receives a failing grade, the instructors may offer the opportunity to revise the assignment for reevaluation purposes.

Grading Scale

Based on [Section F.1.1](#) of the Academic Calendar

Grade	Grade Point Value	4-Point Range	Percent	Description
A+	4.00	4.00	95-100	Outstanding performance
A	4.00	3.85-4.00	90-94.99	Excellent performance
A-	3.70	3.50-3.84	85-89.99	Approaching excellent performance
B+	3.30	3.15-3.49	80-84.99	Exceeding good performance
B	3.00	2.85-3.14	75-79.99	Good performance
B-	2.70	2.50-2.84	70-74.99	Approaching good performance
C+	2.30	2.15-2.49	65-69.99	Exceeding satisfactory performance
C	2.00	1.85-2.14	60-64.99	Satisfactory performance
C-	1.70	1.50-1.84	55-59.99	Approaching satisfactory performance. Minimum grade requirement for prerequisite courses.

D+	1.30	1.15-1.49	50-54.99	Marginal pass. Insufficient preparation for subsequent courses in the same subject.
D	1.00	0.50-1.14	45-49.99	Minimal Pass. Insufficient preparation for subsequent courses in the same subject.
F	0.00	0-0.49	0-44.99	Failure. Did not meet course requirements.

University of Calgary Policies and Supports:

UNIVERSITY OF CALGARY COVID-19 UPDATES AND PROCEDURES

<https://www.ucalgary.ca/risk/emergency-management/covid-19-response/covidsafe-campus>

ACADEMIC ACCOMMODATION

<https://ucalgary.ca/student-services/access/prospective-students/academic-accommodations>

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The student accommodation policy can be found at:

<https://www.ucalgary.ca/legal-services/university-policies-procedures/student-accommodation-policy>

Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities: <https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf>

Students needing an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to their instructor (contact information on first page above).

[Student Accessibility Services](#) will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/.

ACADEMIC MISCONDUCT

Academic Misconduct refers to student behavior which compromises proper assessment of a student's academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students

completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

For information on the Student Academic Misconduct Policy and Procedures please visit:

- Student Academic Misconduct Policy: <https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-policy>
- Student Academic Misconduct Procedure: <https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-procedure>

Additional information is available on the Academic Integrity Website at <https://www.ucalgary.ca/student-services/student-success/learning/academic-integrity>.

COPYRIGHT LEGISLATION

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (<https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy>) and requirements of the Copyright Act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks, etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy (<https://www.ucalgary.ca/pubs/calendar/current/k.html>).

INSTRUCTOR INTELLECTUAL PROPERTY

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

SEXUAL AND GENDER-BASED VIOLENCE POLICY

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's Sexual and Gender-Based Violence Policy guides us in how we respond to incidents of sexual and/or gender-based violence, including supports available to those who have

experienced or witnessed sexual/gender-based violence, or those who are alleged to have committed sexual/gender-based violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at <https://www.ucalgary.ca/legal-services/university-policies-procedures/sexual-and-gender-based-violence-policy>.

UNIVERSITY STUDENT APPEALS OFFICE

If a student has a concern about a grade that they have received, they should refer to Section I of the Undergraduate Calendar (<https://www.ucalgary.ca/pubs/calendar/current/i-3.html>) which describes how to have a grade reappraised.

OTHER IMPORTANT INFORMATION

Please visit the Registrar's website at <https://www.ucalgary.ca/registrar/registration/course-outlines> for additional important information on the following:

- Wellness and Mental Health Resources
- Student Success
- Student Ombuds Office
- Student Union (SU) Information
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk