



UNIVERSITY OF CALGARY  
FACULTY OF SCIENCE  
DEPARTMENT OF COMPUTER SCIENCE  
COURSE OUTLINE

1. **Course:** CPSC 583, Introduction to Information Visualization -- Fall 2017

*Lecture 01:*

Instructor Name	Email	Phone	Office	Hours
Sheelagh Carpendale	sheelagh@ucalgary.ca	403 220 6055	MS680J	by appointment

*Course Site:*

D2L: CPSC 583 L01-(Fall 2017)-Introduction to Information Visualization  
and

<http://innovis.cpsc.ucalgary.ca/Courses/CPSC583-2017>

Department of Computer Science: ICT 602, 403 220-6015, cpsc@cpsc.ucalgary.ca

2. **Prerequisites:**

See section [3.5.C](#) in the Faculty of Science section of the online Calendar.

Computer Science 319 or 331.

Prior or concurrent completion of Computer Science 453 or 481 is strongly recommended.

3. **Grading:**

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

Component(s)	Weighting %
Project 1	15%
Project 2	15%
Project 3	20%
Project Integration	15%
Class Activities	20%
Visual Journal	15%

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a percentage score. The student's average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows;

Letter Grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum Percent Required	95	90	85	80	75	70	65	60	55	50	45

4. **Missed Components of Term Work:**

The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in [Section 3.6](#). It is the student's responsibility to familiarize himself/herself with these regulations. See also [Section E.3](#) of the University Calendar

5. **Scheduled out-of-class activities:**

There are no out-of-class activities scheduled for this course.

## 6. **Course Materials:**

*required text: Information Visualization: Design for Interaction (3rd Edition)*  
Robert Spence

## 7. **Examination Policy:**

No aids are allowed on tests or examinations

There is no final exam

Students should also read the Calendar, [Section G](#), on Examinations.

## 8. **Approved Mandatory and Optional Course Supplemental Fees:**

There are no mandatory or optional course supplemental fees for this course

## 9. **Writing across the Curriculum Statement:**

See Section E.2 of the University Calendar.

## 10. **Human studies statement:**

If you agree, your course work may be used for research purposes. Your responses will remain anonymous and confidential. Grouped data (no individual responses) may be used in academic presentations and publications. Participation in such research is voluntary and will not influence grades in this course. Students' signed consent forms will be withheld from instructors until after final grades are submitted. More information will be provided at the time student participation is requested.

## 11. **OTHER IMPORTANT INFORMATION FOR STUDENTS:**

- a. **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties.
- b. **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
- c. **Academic Accommodation Policy:** Students needing an Accommodation because of a Disability or medical condition should contact Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities available at [procedure-for-accomodations-for-students-with-disabilities\\_0.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 the Associate Head of Undergraduate Affairs of the Department of Computer Science, Nathaly Verwaal by email [nmverwaa@ucalgary.ca](mailto:nmverwaa@ucalgary.ca) or phone 403-220-8485.

- d. **Safewalk:** Campus Security will escort individuals day or night ([www.ucalgary.ca/security/safewalk/](http://www.ucalgary.ca/security/safewalk/)). Call [403-220-5333](tel:403-220-5333) for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- e. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPPA). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see also [www.ucalgary.ca/legalservices/foip](http://www.ucalgary.ca/legalservices/foip).
- f. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](tel:403-220-3911) Email: [suvsaca@ucalgary.ca](mailto:suvsaca@ucalgary.ca). SU Faculty Rep. Phone: [403-220-3913](tel:403-220-3913) Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca); Student Ombudsman, Email: [suvsaca@ucalgary.ca](mailto:suvsaca@ucalgary.ca)
- g. **Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy, you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
- h. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction ([USRI](#)) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with

evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these Surveys.

- i. **SU Wellness Center:** The Students Union Wellness Centre provides health and wellness support for students including information and counselling on physical health, mental health and nutrition. For more information, see [www.ucalgary.ca/wellnesscentre](http://www.ucalgary.ca/wellnesscentre) or call [403-210-9355](tel:403-210-9355).

**Department Approval:**

Electronically Approved

**Date:** 2017-09-13 14:42

## **Course Outcomes**

1. Students should be comfortable brainstorming, sketching, and prototyping novel visualization designs.
2. Students should be able to describe the effectiveness, expressiveness, and distinguishing properties of a range of different visual encodings (including position, length, area, hue, value, motion, etc.)
3. Students should be able to explain the differences and challenges of how nominal, ordinal, and quantitative data can be communicated.
4. Students should be able to interpret, critique, and deconstruct visualizations created by others.
5. Students should be able to build interactive visualizations.
6. Students should be aware of a variety of specific domain areas in information visualization such as text visualization, tree and network visualization, maps, multidimensional data visualization, physical visualization, and casual/personal visualization.