New Course Proposal

College: New York City College of Technology, City University of New York School: School of Arts and Sciences
Department: Architectural Technology

Title of Proposed Course: Information Design Theories [ID]
Proposed Course Number: ARCH 2205ID
Proposer's Name: Anne E. Leonhardt
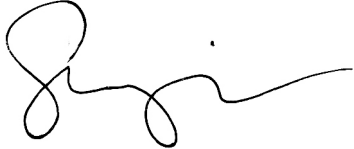Submission Date: 2/17/2023

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New York City College of Technology, CUNY

CURRICULUM MODIFICATION PROPOSAL FORM

This form is used for all curriculum modification proposals. See the [Proposal Classification Chart](#) for information about what types of modifications are major or minor. Completed proposals should be emailed to the Curriculum Committee chair.

Title of Proposal	Information Design Theories (ID)
Date	**2/25/23**
Major or Minor	**Major**
Proposer's Name	**Anne Leonhardt**
Department	~~ARCH~~
Date of Departmental Meeting in which proposal was approved	**1/25/23**
Department Chair Name	**Sanjive Vaidya**
Department Chair Signature and Date	
Academic Dean Name	**Gerarda Shields**
Academic Dean Signature and Date	*Gerarda M. Shields*
Brief Description of Proposal (Describe the modifications contained within this proposal in a succinct summary. More detailed content will be provided in the proposal body.	Every day, we are overloaded with a seemingly endless flow of information — social media feeds, news, advertising, emails, text messages. How do we know what information to pay attention to? Information design helps us navigate and understand our data-rich world. This interdisciplinary course defines information design as transforming and adapting information to designated media to achieve a specific goal. The course explores how the information design process transforms data into meaning. Through hands-on, collaborative projects that highlight approaches from Computer Science, Communication Design, and Architecture, students will investigate the history and theory behind effective information design ,while employing user-centered practices.
Brief Rationale for Proposal (Provide a concise summary of why this proposed change is important to the department. More detailed content will be provided in the proposal body).	Given the rapid growth and ubiquity of information and data, an introductory overview course on information design, that delves into its history and theory has great importance generally, but has not yet been developed. An interdisciplinary approach is ideal for such a course that highlights both the computer science and graphic aspects, as well as the social and cultural aspects and ramifications, of how information is created. The course will look at the different phases of information design: how it is stored in the computer, transmitted over networks, and presented in a way that human beings can understand or enjoy.

	The target audience is design (ARCH and COMD) as well as CST students, in the first and second years of their studies, who will need an ID course and who would benefit from a course closely related to their subject matter. The course would fulfill the CUNY Pathways "Scientific World," and is also open to students from across the college. This Information Design course would provide a solid foundation for the ARCH Design and technical analysis courses offered from the 2nd year on, and upper level CST and COMD curriculum. It is expected that one 22-seat section would run per semester; the college has qualified professors for teaching as the principal instructors and guest lecturers. The course does not require new resources, and there are not course overlaps with existing curriculum.
Proposal History (Please provide history of this proposal: is this a resubmission? An updated version? This may most easily be expressed as a list).	**New course proposal**

Please include all appropriate documentation as indicated in the Curriculum Modification Checklist.

For each new course, please also complete the New Course Proposal and submit in this document.

Please submit this document as a single .doc or .rtf format. If some documents are unable to be converted to .doc, then please provide all documents archived into a single .zip file.

CHANCELLOR'S REPORT FORM

COURSE PROPOSAL
Section AIV: New Course

AIV.1. Department	Architectural Technology
Academic Level	**[X] Regular [ ] Compensatory [ ] Developmental [ ] Remedial**
Subject Area	Architectural Technology, Communication Design, and Computer Science
Course Prefix	ARCH
Course Number	2205ID
Course Title	Information Design Theories [ID]
Catalog Description	Information design helps us navigate and understand our data-rich world. This interdisciplinary course explores how the information design process transforms data into meaning. Through hands-on, collaborative projects that highlight approaches from Computer Science, Communication Design, and Architecture, students will investigate the history and theory behind effective information design, while employing user-centered practices. .
Prerequisite	ENG1101
Co-requisite	ENG1101
Credits	3 credits
Contact Hours	2 Class Hours, 2 Lab Hours
Liberal Arts	**[X] Yes [ ] No**
Course Attribute (e.g. Writing Intensive, etc.)	Writing Intensive
Course Applicability	**[ ] Major** **[ ] Gen Ed - Required [X] Gen Ed - Flexible [ ] Gen Ed - College Option** **[ ] English Composition [ ] World Cultures [ ] Speech** **[ ] Mathematics and Global Issues [x] Interdisciplinary** **[ ] Science [ ] US Experience [ ] Advanced Liberal Arts** **In its Diversity** **[ ] Creative Expression** **[ ] Individual and** **Society [x] Scientific** **World**
Effective Term	Spring 2024

City Tech New Course Proposal Submission Form 2016-10-18

Rationale for proposal:
We live in an increasingly data-driven and visually oriented world. As a result, presenting complex information in a clear, concise, and visually engaging manner is an essential skill in a world where information overload is common. This course on information design that is taught by professors with backgrounds in computer science and design has been created to prepare students to work with data at various levels and across different forms of communication. Information design refers to the transformation(s) of information to adapt it to designated media to achieve a specific goal. Information design is not only about the final multimedia presentation but also about how data is derived, how it is stored and processed, and finally used to tell a story to an audience.

This proposed curriculum will be a solid addition to and provide a foundation for courses currently offered in the Architectural Technology Department (e.g., ARCH 3550 - *Building Performance Workshop;* ARCH 3590 - *Parametric Computation, Materials, and Fabrication;* ARCH 3691 *Advanced Design and Building Information Modeling*), the Computer Systems Technology Department (CST 2312 - *Information and Data Management I;* CST 3602 - *Data Visualization*), the Communication Design Department (COMD 3316 *Advanced Image Editing*; COMD3563 - *Web Traffic and Analytics; COMD 4720- Multimedia Design I)*, and the Social Science Department (ECON3301 - *Visualizing and Mapping Economic Data*; PHIL 2106 - *Philosophy of Technology*). Some universities offer related courses (Carnegie Mellon University - 31-236 *Information Design*; University of Washington DESIGN 478-A - Information Design; MIT 4.032 - *Information Design and Visualization*), but these are typically taught either in the Design or Art School or in the Computer Science Department. This Interdisciplinary course will thus be a pioneer on campus in including content and perspectives across disciplines, trailblazing a path for other programs. It will attract and benefit students from a variety of backgrounds and interests at City Tech, also allowing them to fulfill the Writing Intensive requirement, while developing cross-disciplinary competence. By providing a broad examination of this topic of information and information design, which is so foundational to both the technology and design programs at the college, this lower level Pathways course being offered early in the curriculum will prepare students well for further coursework in their majors. This course has no equivalent across CUNY.

City Tech New Course Proposal Submission Form 2016-10-18

ALL PROPOSAL CHECKLIST

Completed CURRICULUM MODIFICATION FORM including:	
● Brief description of proposal	X
● Rationale for proposal	X
● Date of department meeting approving the modification	X
● Chair's Signature	X
● Dean's Signature	X
Evidence of consultation with affected departments List of the programs that use this course as required or elective, and courses that use this as a prerequisite.	X
Documentation of Advisory Commission views (if applicable).	N/A
Completed [Chancellor's Report Form]().	X

EXISTING PROGRAM MODIFICATION PROPOSALS

Documentation indicating core curriculum requirements have been met for new programs/options or program changes.	N/A
Detailed rationale for each modification (this includes minor modifications)	N/A

City Tech New Course Proposal Submission Form 2016-10-18

Course Structure: how the course will be offered (e.g. lecture, seminar, tutorial, fieldtrip)?	X
Anticipated pedagogical strategies and instructional design (e.g. Group Work, Case Study, Team Project, Lecture)	X
How does this course support Programmatic Learning Outcomes?	X
Is this course designed to be partially or fully online? If so, describe how this benefits students and/or program.	N/A
Additional Forms for Specific Course Categories	
Interdisciplinary Form (if applicable)	X
Interdisciplinary Committee Recommendation (if applicable and if received)* *Recommendation must be received before consideration by full Curriculum Committee	Approved
Common Core (Liberal Arts) Intent to Submit (if applicable)	X
Writing Intensive Form if course is intended to be a WIC (under development)	no form avail.
If course originated as an experimental course, then results of evaluation plan as developed with director of assessment.	N/A
(Additional materials for Curricular Experiments)	
Plan and process for evaluation developed in consultation with the director of assessment. (Contact Director of Assessment for more information).	N/A
Established Timeline for Curricular Experiment	N/A

New York City College of Technology, CUNY

NEW COURSE PROPOSAL FORM

This form is used for all new course proposals. Attach this to the [Curriculum Modification Proposal Form](#) and submit as one package as per instructions. Use one New Course Proposal Form for each new course.

Course Title	Information Design Theories (ID)
Proposal Date	2/25/23
Proposer's Name	Anne Leonhardt, Candido Cabo, Jenna Spevak, Genevieve Hitchings
Course Number	ARCH 2205
Course Credits, Hours	3, 2 lecture, 2 lab
Course Pre / Co-Requisites	ENG 1101
Catalog Course Description	Every day, we are overloaded with a seemingly endless flow of information — social media feeds, news, advertising, emails, text messages. How do we know what information to pay attention to? Information design helps us navigate and understand our data-rich world. This interdisciplinary course defines information design as transforming and adapting information to designated media to achieve a specific goal. The course explores how the information design process transforms data into meaning. Through hands-on, collaborative projects that highlight approaches from Computer Science, Communication Design, and Architecture, students will investigate the history and theory behind effective information design while employing user-centered practices.
Brief Rationale Provide a concise summary of why this course is important to the department, school or college.	Given the rapid growth and ubiquity of information and data, an introductory overview course on information design, that delves into its history and theory has great importance generally, but has not yet been developed. An interdisciplinary approach is ideal for such a course that highlights both the computer science and graphic aspects, as well as the social and cultural aspects and ramifications, of how information is created. The course will look at the different phases of information design: how it is stored in the computer, transmitted over networks, and presented in a way that human beings can understand or enjoy. The target audience is design (ARCH and COMD), as well as more technology oriented students (eg. CST), in the first and second years of their studies, who will need an ID course and who would benefit from a course closely related to their subject matter. The course would fulfill the CUNY Pathways "Scientific World," and also is open to students from across the college. This Information Design course would provide a solid foundation for the ARCH Design and technical analysis courses offered from the 2nd year on, and upper level CST and COMD curriculum. It is expected that one 22-seat section would run per semester; the college has qualified professors for

	teaching as the principal instructor and guest lecturers. The course does not require new resources, and there are not course overlaps with existing curriculum.
CUNY – Course Equivalencies Provide information about equivalent courses within CUNY, if any.	None. The closest is ARTS 269 *Information Design* at Queens College (a mid- to upper-level graphic design course, The course at Queens College differs significantly from the multi-disciplinary proposed course.)
Intent to Submit as Common Core If this course is intended to fulfill one of the requirements in the common core, then indicate which area.	Scientific World
For Interdisciplinary Courses: - Date submitted to ID Committee for review - Date ID recommendation received	2/25/23 & 10/14/23
	2/15/24
- Will all sections be offered as ID? Y/N	Y
Intent to Submit as a Writing Intensive Course	Y

Please include all appropriate documentation as indicated in the NEW COURSE PROPOSAL Combine all information into a single document that is included in the Curriculum Modification Form.

NEW COURSE PROPOSAL CHECK LIST

Use this checklist to ensure that all required documentation has been included. You may wish to use this checklist as a table of contents within the new course proposal.

Completed NEW COURSE PROPOSAL FORM	
• Title, Number, Credits, Hours, Catalog course description	X
• Brief Rationale	X
• CUNY – Course Equivalencies	X
Completed Library Resources and Information Literacy Form	X
Course Outline	
Include within the outline the following.	
Hours and Credits for Lecture and Labs	
If hours exceed mandated Carnegie Hours, then rationale for this	X
Prerequisites/Co- requisites	X
Detailed Course Description	X
Course Specific Learning Outcome and Assessment Tables • Discipline Specific • General Education Specific Learning Outcome and Assessment Tables	X
Example Weekly Course outline	X
Grade Policy and Procedure	X
Recommended Instructional Materials (Textbooks, lab supplies, etc)	X
Library resources and bibliography	X
Course Need Assessment.	
Describe the need for this course. Include in your statement the following information.	
Target Students who will take this course. Which programs or departments, and how many anticipated? Documentation of student views (if applicable, e.g. non-required elective).	X
Projected headcounts (fall/spring and day/evening) for each new or modified course.	X
If additional physical resources are required (new space, modifications, equipment), description of these requirements. If applicable, Memo or email from the VP for Finance and Administration with written comments regarding additional and/or new facilities, renovations or construction.	X
Where does this course overlap with other courses, both within and outside of the department?	X
Does the Department currently have full time faculty qualified to teach this course? If not, then what plans are there to cover this?	X
If needs assessment states that this course is required by an accrediting body, then provide documentation indicating that need.	N.A.
Course Design	
Describe how this course is designed.	

New Course: ARCH 1205ID

Course Context (e.g. required, elective, capstone)	X
Course Structure: how the course will be offered (e.g. lecture, seminar, tutorial, fieldtrip)?	X
Anticipated pedagogical strategies and instructional design (e.g. Group Work, Case Study, Team Project, Lecture)	X
How does this course support Programmatic Learning Outcomes?	X
Is this course designed to be partially or fully online? If so, describe how this benefits students and/or program.	X
Additional Forms for Specific Course Categories	
Interdisciplinary Form (if applicable)	In Process
Interdisciplinary Committee Recommendation (if applicable and if received)* *Recommendation must be received before consideration by full Curriculum Committee	
Common Core (Liberal Arts) Intent to Submit (if applicable)	X
Writing Intensive Form if course is intended to be a WIC (under development)	N.A.
If course originated as an experimental course, then results of evaluation plan as developed with director of assessment.	N.A.
(Additional materials for Curricular Experiments)	
Plan and process for evaluation developed in consultation with the director of assessment. (Contact Director of Assessment for more information).	N.A.
Established Timeline for Curricular Experiment	N.A.

New York City College of Technology
Interdisciplinary Committee

Criteria for an Interdisciplinary Course

I. Interdisciplinary Studies Definition

Interdisciplinary studies involve two or more academic disciplines or fields of study organized around synthesizing distinct perspectives, knowledge, and skills. Interdisciplinary study focuses on questions, problems, and topics too complex or too broad for a single discipline or field to encompass adequately; such studies thrive on drawing connections between seemingly exclusive domains. Usually theme-based, interdisciplinary courses intentionally address issues that require meaningful engagement of multiple academic disciplines. Pedagogical strategies focus on, but are not limited to, inquiry or problem-based learning.

Although many academic disciplines, such as African American Studies and Engineering, are inherently interdisciplinary, to be considered an interdisciplinary course at City Tech the course must be team-taught[1] by more than one faculty member from two or more departments[2] in the College. An interdisciplinary course, by definition, has an interdisciplinary theme as its nucleus. In its essence, such a course brings the analytic methods of two or more academic disciplines to bear on a specific problem or question. Thus, a course in Music History is not likely to be considered interdisciplinary, but a course in Music History from an economist's perspective might very well lead to such a course. The application of different methods and concepts is the key to assessing whether a course is or is not interdisciplinary. The term interdisciplinary is occasionally used to identify individual projects or assignments, but these, though possibly commendable, fall short in the necessary scope for learning experiences that demand in-depth exposure to the methodologies of distinct intellectual disciplines, and the creative application of these methodologies to specific problems.

Studies show that interdisciplinary courses improve student learning (Elrod & Roth, 2012; Klein, 2010; Lattuca, 2001; Lattuca, Voigt, & Fath, 2004; Project Kaleidoscope, 2011). To foster interdisciplinary learning, the Interdisciplinary Committee has identified goals and outcomes that students taking interdisciplinary courses should be able to achieve.

Learning Outcomes of Interdisciplinary Courses
Students will be able to:
- Purposefully connect and integrate across-discipline knowledge and skills to solve problems
- Synthesize and transfer knowledge across disciplinary boundaries
- Comprehend factors inherent in complex problems
- Apply integrative thinking to problem-solving in ethically and socially responsible ways
- Recognize varied perspectives
- Gain comfort with complexity and uncertainty
- Think critically, communicate effectively, and work collaboratively
- Become flexible thinkers

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[1] See "Application for Interdisciplinary Course Designation" question 9b for team-teaching options.
[2] Exceptions are made for Departments that provide a home for multiple disciplines, such as Humanities and Social Science.

New York City College of Technology
Interdisciplinary Committee

Application for Interdisciplinary Course Designation

Date _2/25/2023_____

Submitted by _Anne Leonhardt, Candido Cabo, Genevieve Hitchings, Jenna Spevak_____

Department(s) ARCH (with CST and COMD)_____

II.   Proposal to Offer an Interdisciplinary Course

- Identify the course type and title:

  ☐ An existing course_____

  ■ A new course   ~~Information Design Theories --[ID]~~ _____

  ☐ A course under development _____

- Provide a course description _ Every day, we are overloaded with a seemingly endless flow of information — social media feeds, news, advertising, emails, text messages. How do we know what information to pay attention to? Information design helps us navigate and understand our data-rich world. This interdisciplinary course explores how the information design process transforms data into meaning. Through hands-on, collaborative projects that highlight approaches from Computer Systems, Communication Design, and Architecture, students will investigate the history and theory behind effective information design while employing user-centered practices.

  - How many credits will the course comprise? __3____ How many hours? _2 lecture/2 lab____

  - What prerequisite(s) would students need to complete before registering for the course? Co-requisite(s)?

    ENG 1101
    _____

  - Explain briefly why this is an interdisciplinary course. _ This course explores in a focused way information design from the perspectives of computer scientists, graphic designers and architects. Professors from these different fields designed the course. One of the key objectives of the course is

to allow students from these disciplines to understand better the approaches and work of the other disciplines involved, to better prepare them for working in interdisciplinary teams in the real world—something which will serve our graduates well. Additionally, one lecture of the course will be given by someone from the social science disciplines, and will discuss social or cultural theory and research, and approaches to information design. In this way, the course connects the information design process to content related to real life.

- What is the proposed theme of the course? What complex central problem or question will it address? What disciplinary methods will be evoked and applied?

   The course will examine the nature of information across the three disciplines involved in designing the course (computer science, graphic design, and architecture) and the different approaches to working with information that exists for computer scientists versus graphic and architectural designers. The key approach is to understand information design of today through the lens of theory and history. These analyses will feed into a research project during the last part of the semester that revolves around user-centered experiences of information design. _____

- Which general learning outcomes of an interdisciplinary course does this course address?
  Please explain how the course will fulfill the bolded mandatory learning outcome below. In addition, select and explain at least three additional outcomes.

  ◼ **Purposefully connect and integrate across-discipline knowledge and skills to solve problems**
     Students will work in interdisciplinary teams to come up with information design proposals for the departments' orientation material, that begin from initial data collection and finish with a design graphic.

     _____

  ◼ **Synthesize and transfer knowledge across disciplinary boundaries**
     By studying the topic through history and theory about different disciplinary-specific information designs, the students will learn from these various fields.

     _____

  ☐ Comprehend factors inherent in complex problems

     _____

  ◼ Apply integrative thinking to problem solving in ethically and socially responsible ways

The research project asks students to solve information design problems in a way that improves the experiences of incoming students.

☒ Recognize varied perspectives
The course design revolves around presentations and discussions from three to four disciplines of their perspectives on and approaches to information design.

☐ Gain comfort with complexity and uncertainty

☒ Think critically, communicate effectively, and work collaboratively
The final research project demands each of these three aspects. The journal entry, presentations, and discussions will also develop critical thinking and effective communication.

☐ Become flexible thinkers

☐ Other

General Education Learning Goals for City Tech Students

- **Knowledge:** Develop knowledge from a range of disciplinary perspectives, and hone the ability to deepen and continue learning.
- **Skills:** Acquire and use the tools needed for communication, inquiry, creativity, analysis, and productive work.
- **Integration**: Work productively within and across disciplines.
- **Values, Ethics, and Relationships**: Understand and apply values, ethics, and diverse perspectives in personal, professional, civic, and cultural/global domains.

▪ How does this course address the general education learning goals for City Tech students?
This course incorporates each of these four General Education learning goals, as can be seen in the weekly schedule and student work descriptions

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- Which department would house this course[3]? _Architectural Technology_____
  Would all sections of the course be interdisciplinary? ☐ No ■Yes

  a) Would the course be cross-listed in two or more departments? ■No ☐ Yes
     Explain.

     _____

  b) How will the course be team-taught[4]? ■Co-taught ☐ Guest lecturers ☐ Learning community If

     co-taught, what is the proposed workload hour distribution? _____
     ☐ Shared credits ☐ Trading credits
     If guest lecturers, for what approximate percentage of the course? ☐ Minimum 20% ■ other: 35___
     %

     Please attach the evaluation framework used to assess the interdisciplinarity of the course.[6]

  c) What strategies/resources would be implemented to facilitate students' ability to make
     connections across the respective academic disciplines?
  d)
        Group assignments with project-based learning

     _____

     _____

- Would the course be designated as:
  ■ a College Option requirement[7]? ☐ an elective? ☐ a Capstone course[8]? ☐ other? Explain.

        The course would have the Scientific World designation for the College Option.
        _____

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[3] An interdisciplinary course for the College Option requirement may be housed in a department that is not liberal arts.

[4] Attach evidence of consultation with all affected departments.

[5] While an interdisciplinary course must be team-taught, there is no formal percentage requirement, but this minimum is a guideline.

[6] In the case that a course is equally taught, include proposed plans for faculty classroom observation and student evaluation of teaching.

[7] To qualify for the College Option, such a course must also meet the New York State definition of a liberal arts and sciences course. http://www.highered.nysed.gov/ocue/lrp/liberalarts.htm

[8] A course proposed as a Capstone course must be separately approved by the Capstone Experience Committee.

LIBRARY RESOURCES & INFORMATION LITERACY: MAJOR CURRICULUM MODIFICATION

Please complete for **all** major curriculum modifications. This information will assist the library in planning for new courses/programs.

Consult with your library faculty subject specialist (http://cityte.ch/dir) **3 weeks before the proposal deadline**.

Course proposer: please complete boxes 1-4. **Library faculty subject specialist:** please complete box 5.

1	Title of proposal: Interdisciplinary Information Design (ID²⁾	Department/Program ARCH
	Proposed by (include email & phone) Anne Leonhardt, aleonhardt@citytech.cuny.edu	**Expected date course(s) will be offered** Fall 2024 **# of students 22**

2	**The library cannot purchase reserve textbooks for every course at the college, nor copies for all students. Consult our website (http://cityte.ch/curriculum) for articles and ebooks for your courses, or our open educational resources (OER) guide (http://cityte.ch/oer). Have you considered using a freely-available OER or an open textbook in this course?** The course is planned as an OER Open Resource course, using Electronic Textbooks: Isabel Meirelles, *Information Design* and Luciano Floridi, *Information: A Very Short Introduction,* and other OER journal articles and multimedia resources.

3	**Beyond the required course materials, are City Tech library resources sufficient for course assignments? If additional resources are needed, please provide format details (e.g. ebook, journal, DVD, etc.), full citation (author, title, publisher, edition, date), price, and product link.** Yes

4	**Library faculty focus on strengthening students' information literacy skills in finding, critically evaluating, and ethically using information. We collaborate on developing assignments and customized instruction and research guides. When this course is offered, how do you plan to consult with the library faculty subject specialist for your area? Please elaborate.** Consultation on assignments related to information design precedents have begun, and will continue to be very useful, as well as advisement about on-line research methodologies.

5	**Library Faculty Subject Specialist: Nora Almeida** **Comments and Recommendations:** Library faculty subject specialist will work with the City Tech e-resources librarian to ensure the library maintains access to e-books used in this course and that e-book licenses allow for multiple simultaneous users. This interdisciplinary, research and writing intensive course would benefit from

library consultation on research project design. The library subject specialist can offer information literacy instruction upon request and / or create course specific digital asynchronous resources to support student research projects as appropriate.

Date: 2.28.23

New York City College of Technology
The City University of New York

School of Technology and Design
Department of Architectural Technology

ARCH 2205ID – Information Design Theories [ID]

Course Description

Every day, we are overloaded with a seemingly endless flow of information — social media feeds, news, advertising, emails, text messages. How do we know what information to pay attention to? Information design helps us navigate and understand our data-rich world. This interdisciplinary course explores how the information design process transforms data into meaning. Through hands-on, collaborative projects that highlight approaches from Computer Science, Communication Design, and Architecture, students will investigate the history and theory behind effective information design while employing user-centered practices.

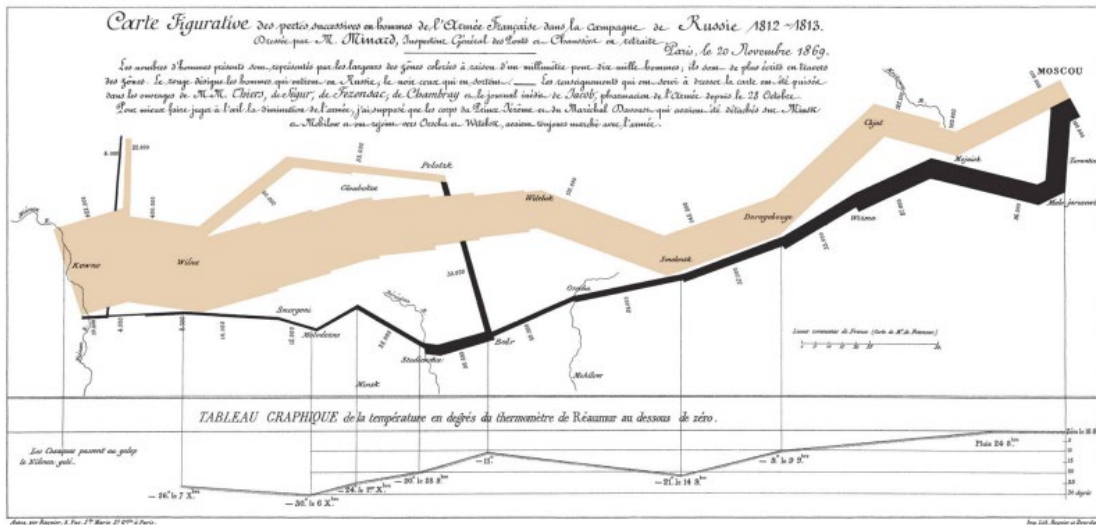2 lecture, 2 lab hrs, 3 cr
WI - Writing Intensive

Fig. 1. Minard's **Napoleon's March** is a strong example of a graphic that represents data over time.

Prerequisites:

Pre- or Co-Requisite: ENG 1101

Course Objectives

INSTRUCTIONAL OBJECTIVES	ASSESSMENT
For the successful completion of this course, students should be able to:	**Evaluation methods and criteria:**
Theory and Concept: Demonstrate knowledge of history and theory of information design	Demonstrate knowledge through research blog posts, reflective journal entries, and/or short quizzes and assignments
Theory and Concept: Exhibit an understanding of different views and definitions of information and information design as well as between data, information, and knowledge	Visually and verbally express abstract concepts and feelings
Physical: Understand concepts related to storage, transfer, and retrieval of information	Demonstrate knowledge through research blog posts, reflective journal entries, assignments, and/or short quizzes
Semantic: Understand principles of design for communication	Critique own work independently; develop and grow intellectually. Demonstrate knowledge through research blog posts, reflective journal entries, and/or assignments
Behavioral: Exhibit concepts of narrative, structure and storytelling –how information affects conduct	Demonstrate knowledge through research blog posts, reflective journal entries, and assignments
Project Design: Conduct research that includes data and survey collection	Demonstrate knowledge through organization and verbal communication for solving communication challenges
Project Design: Analyze, organize, and assess findings	Demonstrate knowledge through organization, visual storytelling, and verbal communication
Project Design: Define, design, and deliver final project	Demonstrate knowledge through organization, visual storytelling, and verbal communication

General Education Outcomes
https://facultycommons.citytech.cuny.edu/wp-content/uploads/2014/09/General-Education-Learning-Goals_March-2013.pdf

General Education Outcome:	How the outcome is covered:
Oral Communication Speaking: Demonstrate the ability to articulate ideas using relevant discipline-specific language	Evaluate through class discussion and critique, and presentations, if students use appropriate nomenclature to demonstrate creative, critical and technical decisions in project concepts and development
Thinking Critically Demonstrate the ability to evaluate evidence and apply reasoning to make valid inferences	Evaluate through class critique a determination of how well students were able to advance project concepts by applying evidence and using logic to make decisions
Application Manifest an ability to successfully apply concepts into both in-class and long-term assignments	Evaluate how well students absorbed and consequently applied the learning through oral and written critiques of projects
Social Interaction Demonstrate an understanding of professional ethics.	Evaluate through class discussion and written tests if students have developed a sensitivity and awareness of professional ethics.

Writing Intensive

This course is designated "Writing Intensive." Students will be writing every week, in class and on the OpenLab via weekly blog posts, peer-to-peer comments, and journal entries. Part of this practice will be presenting thoughtful reflections on their learning process in order to demonstrate a comprehension of relevant concepts. The instructor will provide timely feedback and guide students as they develop their project proposals and final presentations. Students will also submit critical written analyses of information design examples and readings leading to 1-2 page exploratory papers that use standard citation guidelines.

Research Project

The final project will cover material from lectures, class activities, weekly project work. Students will work in groups to implement data and research, explore tools, and create interactive design solutions that introduce the COMD, ARCH, CST Departments and the College to other students.

Deliverables: a final presentation that presents data, research, and a design solution/prototype

- **Data--** Find interesting data sets that tell a story, providing students a way to explore the three departments and City Tech.

- **Research--** Think about information design questions to improve an understanding of the similarities and differences amongst departments, as well as what knowledge would help improve students' college experience. Then use these ideas to design, research, gather, and analyze data.
- **Design Solution--** Building upon methods learned throughout the semester, explore creative information design solutions and present a prototype that communicates data to the audience

Teaching/Learning Methods

The course will be co-taught with lectures from professors from the ARCH, COMD, and CST departments, as well as others periodically from disciplines that use data analytics, like the social sciences and math. Learning methods will include:
- Lectures and readings
- Discussion and critiques
- OpenLab Discussion Posts/Comments
- Peer-to-peer critique
- Research Journal
- Examples / Reference
- Formal Presentations
- Class and individual projects

Required Texts & Video

Meirelles, Isabel. *Design for Information : An Introduction to the Histories, Theories, and Best Practices Behind Effective Information Visualizations*, Quarto Publishing Group USA, 2013. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/citytech-ebooks/detail.action?docID=3399922.

Floridi, Luciano. *Information : A Very Short Introduction*, Oxford University Press, 2010. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/citytech-ebooks/detail.action?docID=737413.

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Specific books, magazines, periodicals, and video will vary with selected assignments. Instructor will provide a materials list.

Required Materials
Sketchbook, External drive or Dropbox account, ArcGIS Online Account

Grading

All projects, homework, in-class assignments, and discussion posts will be graded assignments. Research, independent preparation, class participation, and verbal analysis of precedent information design work and concepts will also be taken into consideration. There will be no final examination.

Grade Distribution
The following grade scale is recommended for use in this course. The exact distribution of percentages will be determined by the individual section instructors.

In this writing-intensive course, students are expected to write between 20-30 pages in total.

Posts / Discussion Comments 20% (1 page weekly)
Exploratory Papers 15% (1-2 pages each)
Research Journal 10% (1 page weekly)
Research Project & Presentation 25% (2-3 pages)
Assignments 15%
Productivity & Participation 15%

Academic Integrity Standards
Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion.

Student Accessibility
City Tech is committed to supporting the educational goals of enrolled students with disabilities. If you have or think you may have a disability, you may be eligible for reasonable accommodations or academic adjustments as provided under applicable federal, state, and/ or city laws. You may also request services for temporary conditions or medical issues under certain circumstances. If you have questions about your eligibility and/or would like to seek accommodation services and/or academic adjustments, please contact the Student Accessibility Center. [web site: https://www.citytech.cuny.edu/accessibility/ Email: Accessibility@citytech.cuny.edu]

Academic Writing Center (AG-18): Available for any student needing help. Students will find an array of services such as: study skills training; support for reading and writing skills; and assistance with mathematics, oral communication and computer applications. Both peer and faculty tutors are available for assistance. The Academic Support Center offers academic assistance to all students through the use of services including tutoring, workshops and access to computer-based programs. For further information, please visit the Academic Support Center on campus and on Blackboard.

Diversity and Inclusive Education Syllabus Statement:

This course welcomes students from all backgrounds, experiences and perspectives. In accordance with the City Tech and CUNY missions, this course intends to provide an atmosphere of inclusion, respect, and the mutual appreciation of differences so that together we can create an environment in which all students can flourish. It is the instructor's goal to provide materials and activities that are welcoming and accommodating of diversity in all of its forms, including race, gender identity and presentation, ethnicity, national origin, religion, cultural identity, socioeconomic background, sexuality and sexual orientation, ability, neurodivergence, age, and etc. Your instructor is committed to equity and actively seeks ways to challenge institutional racism, sexism, ableism and other forms of prejudice. Your input is encouraged and appreciated. If a dynamic that you observe or experience in the course concerns you, you may respectfully inform your instructor without fear of how your concerns will affect your grade. Let your instructor know how to improve the effectiveness of the course for you personally, or for other students or student groups. We acknowledge that NYCCT is located on the traditional homelands of the Canarsie and Lenape peoples.

Course Schedule

WEEK/ LEAD	LECTURE/ DEMO	LAB ACTIVITY	PROJECT MILESTONES
1 CST/ ARCH	**Theory and Concepts: The Information Society** Topics Covered: What is information? What is Information Design? Students will explore definitions of information and information design and an overview of the history of information. Readings: Floridi, Luciano. Information : A Very Short Introduction, Oxford University Press, 2010. Chapter 1	Review course syllabus; course project is introduced via mapping exercise to learn about the college and departments (ARCH, COMD, CST) Students identify at least three problematic areas in how the College currently attempts to orient new students to campus, and consider elements that could improve their experience. Are students presented with enough information to enable them to make informed decisions about study in following departments ARCH, COMD, CST	Students review and compare findings of mapping exercise; Students write in research journal, discussion posts and comments.

	Gleick, James. <u>The Information: A History, A Theory, A Flood.</u> Pantheon Books, 2011. Introduction. McLuhan, Marshall. <u>Understanding Media: The Extensions of Man</u>. 1964. Ch. 1 (optional)		
2 **CST**	**Theory and Concepts: Data vs. Information vs. Knowledge** Understanding data Quantitative and qualitative data; Transforming data into information; using information to make decisions and/or take actions. Readings: Floridi, Luciano. <u>Information : A Very Short Introduction</u>, Oxford University Press, 2010. Chapter 2 Goodfellow, Ian. *Deep Learning*. Intro.	Students create survey/interview each other; collect data about student knowledge of the college and specific departments (CST, COMD, ARCH). Students use and are trained with Xie & Germuth's *Interview Guide.*	Organize findings into categories and using tools presented in class; Students write in research journal, discussion posts and comments.
3 **CST**	**Theory and Concepts** Representing / Encoding/ Transforming Information for Storage and Communication Oral language Written language. Symbols Codes	Students create survey/interview each other (continued); collect data about student knowledge of the college and specific departments (CST, COMD, ARCH).	Organize findings into categories and using tools presented in class; Students add to research journal; submit discussion posts and comments.

	Information transformations and media Models of Communication Readings: Floridi, Luciano. Information : A Very Short Introduction, Oxford University Press, 2010. Chapter 3 DuBois, WEB. Data Portraits: Visualizing Black America: Review in Library of Congress Blog, Picture This.		
4 **CST**	**Physical** <u>Information design for storage and retrieval:</u> Text formats: -ASCII -Unicode Image formats: -Raster and vector formats -Bit depth -Compression algorithms: lossless and lossy Data architecture and patterns: SQL and noSQL databases; CSV files. Data structures: trees	1. Students will download and use *hexdump* to view the binary representation of files 2. Students will create a text file (with Notepad or TextEdit) and understand its ASCII representation in a computer with *hexdump*. 3. Students will create a PNG file (with www.pixilart.com) and understand its binary representation in a computer with *hexdump*.	Students will design strategies to store the data that they are collecting and analyzing for the project. Students will analyze the representation of data files created for the project in electronic media. Students add to research journal; submit discussion posts and comments.

| 5

CST | **Physical**

<u>Information design for communication:</u>

-Converting a message to a signal: packets, headers and trailers

-Signals and noise: error detection and correction codes (redundancies)

-Communication channel capacity

<u>Information design for privacy:</u>

-Brief history of ciphers

-Privacy over the internet: public key encryption. | 1. Students will encrypt simple messages using the Cesar cypher.

2. Students will read *The Gold Bug* by E. A. Poe and decode the cryptogram at the core of the story.

3. Using a Network analyzer, students will understand how information is transferred reliably over a network.

4. Students will understand the need of encryption for private communications. | Students compose a 1-2 page exploratory essay on topic related to concepts of Physical Information |
| 6

Guest Lecturer: Social Sciences | **Behavioral/Ethics**
(to be assigned guest lecturer from the social sciences)
Precedent lecture
Demographics, City Data, College Data (Precedents) | Students review (analyze) information they have collected from interviews and survey (week 1 and 2)
● What conclusions can they make?
● What questions do they have?
Organize their findings and make available to the entire class. | Students add to research journal; submit discussion posts and comments. |

7 **ARCH**	**Behavioral/Ethics** (ibid) Story telling How to recognize patterns in information? And build a story.	Mid-Term:Presentations: Students present the Data they collected and share with the class how it has been stored and made available to all.	Students compose a 1-2 page exploratory essay on topic related to Behavioral Design
8 **ARCH**	**Semantic/Design** Qualitative Vs. Quantitative Exploration of four categories of graphic representation to help organize and structure quantitative information in ways that make concepts easier to understand. 1. Inform: convey a single data point 2. Compare: categorical data 3. Transform: over time or location 4. Organize: arranging content by groupings, rankings, or process Readings: Meirelles, Isabel, Intro, Ch. 1,2	From the interviews and survey (week 1 and 2) distinguish what is Qualitative Vs. Quantitative Students review the following website: https://datavizcatalogue.com/search.html Select a minimum of three charts that best visualize their findings from the interviews and survey (week 1 and 2)	Students add to research journal; submit discussion posts and comments.
9 **ARCH/ COMD**	**Semantic/Design** Exploring the role of type in establishing a visual hierarchy. And an overview of the principles of design and their impact on visual perception. 1. Repetition 2. Emphasis	Intro to ArcGis explore concepts of hierarchy of Information and related design decision making i.e. color palettes, type choices, etc.	Students compose a 1-2 page exploratory essay on topic related to Semantic Information

	3. Balance 4. Proximity/Unity 5. Proportion 6. Alignment Readings: Meirelles, Isabel, Ch. 3,4		

10
 	
COMD
	Examples of types of media and tools
	  Introduction to Cartography via ArcGIS Online
	  -locating places with geospatial coordinates
	  -attaching data to maps with shape files
	  -Visualizing data on maps with
	    - color, transparency, text, layers, and pop-up layers, symbols
		In Class Project:
		-Create a map of the campus for a scavenger hunt
		-create symbols for different places on campus
			Students add to research journal; submit discussion posts and comments.

11 **COMD**	**Examples of types of media and tools** Introduction to Tableau– visualizing analysis of data Read Ch. 1-3, *Mastering Tableau.* Beldwin, David & LinkedIn Learning, *Tableau Essentials. (Free through the library)*		Students add to research journal; submit discussion posts and comments.
12 **COMD**	**Project/Presentation work** Final project: students will work in groups drawing from the prior weeks'	Students start the first phase of their final project: **Research**. This is an opportunity to collect as much literature as possible	Students add to research journal; submit discussion posts and comments.

	material to implement data, research, explore tools, and create interactive design solutions that introduce COMD, ARCH, CST and the college to other students. Final presentation should: 1. Site what is currently lacking in enabling new students to make informed decisions about their choice of study during orientation. 2. present a persuasive proposal with suggestions for addressing these inadequacies.	related to student orientation; Catalog, Welcome Center, City Tech Website, Departments, Demographics, and collect additional information that can help inform, and support the final presentation. **Research-** This is an opportunity to think about information design questions to understand the similarities and differences between departments and what information would help improve students' college experience.	
13 **COMD**	**Project/Presentation work**. Examination of findings from research in phase one. Sort data by: -Compare and contrast Departments - Categorize Physical resources vs. Digital resources	Continuing onto the second phase of the final project: **Data**. Students will use their research to examine and sort specific findings that would enable new students to make informed decisions about their choice of study during orientation. **Data-** Analyze interesting data sets that tell a story, providing students a way to explore the 3 departments and City Tech.	Students add to research journal; submit discussion posts and comments.

14 **COMD**	**Project/Presentation work** This is the time to use the multiple methods that were discussed throughout the semester, create engaging creative solutions and visuals to help support a proposal and suggestions for addressing the diferent inadequacies.	In the third phase: Design Solution, students will take different creative approaches and plan visuals that present data in a friendly way that would be easily understood – using graphics packages, videos, AR, maps, and any visual aid.	Research Project: • Pinup reviews and discussions Students add to research journal; submit discussion posts and comments.
15 **COMD** **ARCH** **CST**	**Final Presentations** Presentation Day showcasing the process: 1. Research 2. Data 3. Design Solution and Prototype	Final presentation must find solutions to or provide suggestions for better informing new students and improving the overall orientation experience at CityTech.	

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Course Need Assessment

The amount of information and data surrounding us has grown in a staggering way over the past decades, as has the role of information in our lives. Students' capability to understand how information works and operate with agility over the course of their career in such a world is strikingly important.

The study of information and its design has expanded and continues to expand across academic fields in recent years. Curriculum has typically remained framed within discrete fields; however, despite the fact that a broadened understanding encompassing the cross-disciplinary areas of knowledge would greatly benefit future graduates. This is particularly true in the technology and design fields.

The proposed Interdisciplinary course, Interdisciplinary Information Design [ID^2], puts front and center an interdisciplinary approach to studying data and provides a comprehensive overview of the diverse aspects of design at different levels and the different ways people work with data, ranging from computer scientists and mathematicians creating transistors that convey information flow, to data scientists seeking to analyze the meaning of specific types of information, to communication designers like graphic artists who create visualizations that help us understand information, and architects that work with data at a spatial level. This course brings together professors, students, material, and projects that aim to increase understanding of the multiple facets of information.

This course will be offered by the Architectural Technology Department in conjunction with the Computer Systems Technology and Communication Design Departments and with input from the Social Science Department. It fulfills a need for a relevant interdisciplinary course for these programs and will be targeted to lower-level students in these programs. It furthermore represents a natural development of the curriculum, strengthening the content in each of these departments to allow students a foundational understanding of a great breadth of context underlying the tools they use in their studies and future career. Presently, there is one course in the Communication Design Department, with a similar name, COMD 3601 *Information Design*, that is taught at the upper level rather than the lower-level planned for this course – and which focuses on a high level of design production, without looking at the history and interdisciplinary context of information and its creation. The CST 3602 course, Data Visualization, similarly teaches tools and techniques aimed at the upper level CST majors.

Target students: The proposed course will be open to all City Tech students, and targeted specifically to students in the 1st and 2nd years of the Architectural Technology, Computer Systems Technology, and Communication Design programs, where it provides foundational knowledge important for upper-level courses in each of these programs. The course would be suited for all students at the college due to the pervasiveness of digital tools in contemporary work; however, it may be particularly of interest to STEM students.

Offering sections: The course will be taught weekly with one section for each semester of the academic year.

Projected headcount: The class should be capped at 22 students per section to allow seating and access to lab computers for certain class projects. By attracting students from these departments through targeted communications and advisement, the enrollment should develop steadily over the first few years, potentially reaching two to three sections per semester.

Overlap with other courses: There is a direct relation between the proposed course and an upper level Communication Design course, mentioned above. However, this proposed curriculum provides a useful breadth of perspective due to its interdisciplinary teaching and foundational orientation that will benefit students when they take the upper level course. Generally, for students at City Tech, because of its

centering in the history and theory of information, the course takes a different approach from the current content in the School of Technology and Design programs.

This course provides curriculum material and approaches that have just been developed in recent years and not yet been integrated into the curriculum, and, as mentioned above, relates directly to the tools used in the careers students are preparing for. This will be useful to the students for learning current practices – as well as for graduates to be prepared to adapt to future developments in technology.

Department faculty qualified for teaching this course: This course is an Interdisciplinary Course, and faculty from three departments have contributed fundamentally to its design. It is anticipated that the course will be divided amongst professors in ARCH (1 credit hour), CST (1 credit hour), and COMD (2 credit hours) and one Social Science guest lecturer to cover these multi-disciplinary aspects, in computer science, social science, and communication and environmental design. The Architectural Department currently has two full-time faculty members who have expertise in the history and theory of digital technology and who are qualified to lead the teaching of the proposed course. There are also three faculty members in Communication Design and Computer Systems Technology who are highly qualified to teach the interdisciplinary course. There are several full-time faculty qualified for the guest lectures across the related disciplines (along with a number of qualified adjunct professors in these programs).

Course Design

Course context: The proposed course is designed as an interdisciplinary course with topics focused on the history and theory of information, as well as an analysis of how data is produced, stored and distributed, how it relates to behavior, and how it is designed. This liberal arts course is open to all City Tech students, particularly those seeking to fill their ID course requirement as well as their Gen Ed requirements, as well as students interested in graphic design, data analytics, contemporary history, cultural studies, geographic information systems. As mentioned above, it is targeted particularly to Architectural Technology, Communication Design, and Computer Systems Technology students.

Course structure: This is a collaborative course with strong emphasis on discussion and the development of critical thinking and cross-disciplinary awareness. The course will begin with students creating a survey of their colleagues. As a Writing Intensive course, it includes several formal and informal writing assignments like online reading annotations using Hypotheses, weekly critical reflections on the OpenLab site, a series of short structured essays, and a carefully crafted presentation for a final applied research project that teams of students from the different majors will collaborate on.

Anticipated pedagogical strategies and instructional design: This course follows a flipped classroom pedagogical approach, which means that students are assigned various readings and projects to complete before coming to class on a weekly basis, either individually or in small groups. The class will explore the use of Chat GPT in conducting research and collecting information. In-class time is reserved for oral presentations and discussion of contemporary applications of the topic, in-class group projects, writing activities, answering students' questions, clarifying concepts, and above all for applying what students learned from the assigned work. It is expected that students work at least 4-6 hours per week outside of the classroom to complete homework. Following this blended method allows students to take responsibility for their own learning progress. All class sessions will start with a general question related to the theme at hand (or a short multi-media piece) to spark student's thinking on the topic and help students personally connect with the material. At the end of the class session, the same question will be

posted by the instructor (or a different one related to it) to show students what they learned throughout the class. There will be one oral presentation in small groups during each class session, in which students will summarize the information on the assigned reading(s), make connections with contemporary examples of the related aspects of information and data being studied that week, and then lead the class discussion. Each group will hand in a written report of the presentation to be shared with the entire group. After a 15-20 minute lecture by the professor, there will be a class discussion in small groups with a final summary presented by a group leader. During the last 10 minutes of class, the instructor will review the lecture and the assigned readings and present the prompts for the weekly reflection post on the OpenLab and potentially challenging vocabulary. The instructor will also review the reading assignments and student homework for the following week.

How does this course support Programmatic Learning Outcomes? This course is designed as an Interdisciplinary course and is required in this sense for existing programs at City Tech. The satisfactory completion of the course will help students demonstrate their knowledge and understanding of information and information design in its multitude of senses across different disciplines, while recognizing the impact of digital technology on a global scale. The course will support programmatic learning outcomes for students from programs of Architectural Technology, Communication Design, Computer Systems Technology, Emerging Media Technology, Social Science, and the other programs of the School of Technology and Design and STEM, as well as at a more general level the more humanities based programs.

CUNY Common Core
Course Submission Form

Instructions: All courses submitted for the Common Core must be liberal arts courses. Courses may be submitted for only one area of the Common Core. All courses must be 3 credits/3 contact hours unless the college is seeking a waiver for another type of Math or Science course that meets major requirements. Colleges may submit courses to the Course Review Committee at any time. Courses must also receive local campus governance approval for inclusion in the Common Core.

College	New York City College of Technology
Course Prefix and Number (e.g., ANTH 101, if number not assigned, enter XXX)	ARCH 2205ID
Course Title	Information Design Theories (ID)
Department(s)	ARCH
Discipline	Architectural Technology, [Communication Design, Computer Systems Technology]
Credits	3
Contact Hours	2 lecture, 2 lab
Pre-requisites (if none, enter N/A)	ENG 1101
Co-requisites (if none, enter N/A)	n.a.
Catalogue Description	Given the rapid growth and ubiquity of information and data, an introductory overview course on information design, that delves into its history and theory has great importance generally, although it has not yet been developed. An interdisciplinary approach is ideal for such a course that highlights both the computer science and graphic aspects, as well as the social and cultural aspects and ramifications, of how information is created.
Special Features (e.g., linked courses)	ID course and Writing Intensive course
Sample Syllabus	Syllabus must be included with submission, 5 pages max recommended

Indicate the status of this course being nominated:

☐ current course ☐ revision of current course X☐ a new course being proposed

CUNY COMMON CORE Location

Please check below the area of the Common Core for which the course is being submitted. (Select only one.)

Required	Flexible	
☐ English Composition	☐ World Cultures and Global Issues	☐ Individual and Society
☐ Mathematical and Quantitative Reasoning	☐ US Experience in its Diversity	X☐ Scientific World
☐ Life and Physical Sciences	☐ Creative Expression	

Waivers for Math and Science Courses with more than 3 credits and 3 contact hours

Waivers for courses with more than 3 credits and 3 contact hours will only be accepted in the required areas of "Mathematical and Quantitative Reasoning" and "Life and Physical Sciences." Three credit/3-contact hour courses must also be available in these areas.

If you would like to request a waiver please check here:	☐ Waiver requested
If waiver requested: Please provide a brief explanation for why the course will not be 3 credits and 3 contact hours.	

| **If waiver requested:**
Please indicate whether this course will satisfy a major requirement, and if so, which major requirement(s) the course will fulfill. | |

Learning Outcomes **In the left column explain the course assignments and activities that will address the learning outcomes in the right column.**	

I. Required Core (12 credits)	

A. English Composition: Six credits

A course in this area <u>must meet all the learning outcomes</u> in the right column. A student will:

	• Read and listen critically and analytically, including identifying an argument's major assumptions and assertions and evaluating its supporting evidence.
	• Write clearly and coherently in varied, academic formats (such as formal essays, research papers, and reports) using standard English and appropriate technology to critique and improve one's own and others' texts.
	• Demonstrate research skills using appropriate technology, including gathering, evaluating, and synthesizing primary and secondary sources.
	• Support a thesis with well-reasoned arguments, and communicate persuasively across a variety of contexts, purposes, audiences, and media.
	• Formulate original ideas and relate them to the ideas of others by employing the conventions of ethical attribution and citation.

B. Mathematical and Quantitative Reasoning: Three credits

A course in this area <u>must meet all the learning outcomes</u> in the right column. A student will:

	• Interpret and draw appropriate inferences from quantitative representations, such as formulas, graphs, or tables.
	• Use algebraic, numerical, graphical, or statistical methods to draw accurate conclusions and solve mathematical problems.
	• Represent quantitative problems expressed in natural language in a suitable mathematical format.
	• Effectively communicate quantitative analysis or solutions to mathematical problems in written or oral form.
	• Evaluate solutions to problems for reasonableness using a variety of means, including informed estimation.
	• Apply mathematical methods to problems in other fields of study.

C. Life and Physical Sciences: Three credits

A course in this area <u>must meet all the learning outcomes</u> in the right column. A student will:

	• Identify and apply the fundamental concepts and methods of a life or physical science.
	• Apply the scientific method to explore natural phenomena, including hypothesis development, observation, experimentation, measurement, data analysis, and data presentation.
	• Use the tools of a scientific discipline to carry out collaborative laboratory investigations.
	• Gather, analyze, and interpret data and present it in an effective written laboratory or fieldwork report.
	• Identify and apply research ethics and unbiased assessment in gathering and reporting scientific data.

II. Flexible Core (18 credits)
Six three-credit liberal arts and sciences courses, with at least one course from each of the following five areas and no more than two courses in any discipline or interdisciplinary field.

A. World Cultures and Global Issues

A Flexible Core course <u>must meet the three learning outcomes</u> in the right column.

	• Gather, interpret, and assess information from a variety of sources and points of view.
	• Evaluate evidence and arguments critically or analytically.
	• Produce well-reasoned written or oral arguments using evidence to support conclusions.

A course in this area (II.A) <u>must meet at least three of the additional learning outcomes</u> in the right column. A student will:

	• Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring world cultures or global issues, including, but not limited to, anthropology, communications, cultural studies, economics, ethnic studies, foreign languages (building upon previous language acquisition), geography, history, political science, sociology, and world literature.
	• Analyze culture, globalization, or global cultural diversity, and describe an event or process from more than one point of view.
	• Analyze the historical development of one or more non-U.S. societies.
	• Analyze the significance of one or more major movements that have shaped the world's societies.
	• Analyze and discuss the role that race, ethnicity, class, gender, language, sexual orientation, belief, or other forms of social differentiation play in world cultures or societies.
	• Speak, read, and write a language other than English, and use that language to respond to cultures other than one's own.

April 2, 2012   4

B. U.S. Experience in its Diversity

A Flexible Core course <u>must meet the three learning outcomes</u> in the right column.

	• Gather, interpret, and assess information from a variety of sources and points of view.
	• Evaluate evidence and arguments critically or analytically.
	• Produce well-reasoned written or oral arguments using evidence to support conclusions.

A course in this area (II.B) <u>must meet at least three of the additional learning outcomes</u> in the right column. A student will:

	• Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the U.S. experience in its diversity, including, but not limited to, anthropology, communications, cultural studies, economics, history, political science, psychology, public affairs, sociology, and U.S. literature.
	• Analyze and explain one or more major themes of U.S. history from more than one informed perspective.
	• Evaluate how indigenous populations, slavery, or immigration have shaped the development of the United States.
	• Explain and evaluate the role of the United States in international relations.
	• Identify and differentiate among the legislative, judicial, and executive branches of government and analyze their influence on the development of U.S. democracy.
	• Analyze and discuss common institutions or patterns of life in contemporary U.S. society and how they influence, or are influenced by, race, ethnicity, class, gender, sexual orientation, belief, or other forms of social differentiation.

C. Creative Expression

A Flexible Core course <u>must meet the three learning outcomes</u> in the right column.

	• Gather, interpret, and assess information from a variety of sources and points of view.
	• Evaluate evidence and arguments critically or analytically.
	• Produce well-reasoned written or oral arguments using evidence to support conclusions.

A course in this area (II.C) <u>must meet at least three of the additional learning outcomes</u> in the right column. A student will:

	• Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring creative expression, including, but not limited to, arts, communications, creative writing, media arts, music, and theater.
	• Analyze how arts from diverse cultures of the past serve as a foundation for those of the present, and describe the significance of works of art in the societies that created them.
	• Articulate how meaning is created in the arts or communications and how experience is interpreted and conveyed.
	• Demonstrate knowledge of the skills involved in the creative process.
	• Use appropriate technologies to conduct research and to communicate.

D. Individual and Society

A Flexible Core course <u>must meet the three learning outcomes</u> in the right column.

	• Gather, interpret, and assess information from a variety of sources and points of view.
	• Evaluate evidence and arguments critically or analytically.
	• Produce well-reasoned written or oral arguments using evidence to support conclusions.

A course in this area (II.D) <u>must meet at least three of the additional learning outcomes</u> in the right column. A student will:

	• Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the relationship between the individual and society, including, but not limited to, anthropology, communications, cultural studies, history, journalism, philosophy, political science, psychology, public affairs, religion, and sociology.
	• Examine how an individual's place in society affects experiences, values, or choices.
	• Articulate and assess ethical views and their underlying premises.
	• Articulate ethical uses of data and other information resources to respond to problems and questions.
	• Identify and engage with local, national, or global trends or ideologies, and analyze their impact on individual or collective decision-making.

E. Scientific World

A Flexible Core course <u>must meet the three learning outcomes</u> in the right column.

Students will engage in: 1) UX research-- designing interviews and a survey to learn about other student's experiences orienting to college life and their departments; 2) online research of web-based sources to supplement their knowledge of the first-hand source material.	• Gather, interpret, and assess information from a variety of sources and points of view.
Class discussion and analysis will foster understanding of the evidence and arguments being formed. Revision of early drafts will allow students to expand their thinking as they gain more perspectives and knowledge.	• Evaluate evidence and arguments critically or analytically.
Students will design an information display proposal based on their research—and produce their proposal through guided analysis of the conclusions drawn from the results.	• Produce well-reasoned written or oral arguments using evidence to support conclusions.

A course in this area (II.E) <u>must meet at least three of the additional learning outcomes</u> in the right column. A student will:

Students will learn and work with concepts of information collection, storage, and retrieval from the disciplines of computer science and mathematics through a homework assignment, discussions, and quiz	• Identify and apply the fundamental concepts and methods of a discipline or interdisciplinary field exploring the scientific world, including, but not limited to: computer science, history of science, life and physical sciences, linguistics, logic, mathematics, psychology, statistics, and technology-related studies.
The research project will involve students in the process of data collection, analysis and visualization for clear communication of results.	• Demonstrate how tools of science, mathematics, technology, or formal analysis can be used to analyze problems and develop solutions.
	• Articulate and evaluate the empirical evidence supporting a scientific or formal theory.
Students will look at and create journal entries about important precedent examples of data visualization in areas like public health, education, and climate, and discuss the ethical implications and responsibilities related to each case.	• Articulate and evaluate the impact of technologies and scientific discoveries on the contemporary world, such as issues of personal privacy, security, or ethical responsibilities.
	• Understand the scientific principles underlying matters of policy or public concern

in which science plays a role.

New York City College of Technology
The City University of New York

School of Technology and Design
Department of Architectural Technology

ARCH 2205ID – Information Design Theories ID

Course Description

Every day, we are overloaded with a seemingly endless flow of information — social media feeds, news, advertising, emails, text messages. How do we know what information to pay attention to? Information design helps us navigate and understand our data-rich world. This interdisciplinary course explores how the information design process transforms data into meaning. Through hands-on, collaborative projects that highlight approaches from Computer Science, Communication Design, and Architecture, students will investigate the history and theory behind effective information design while employing user-centered practices.

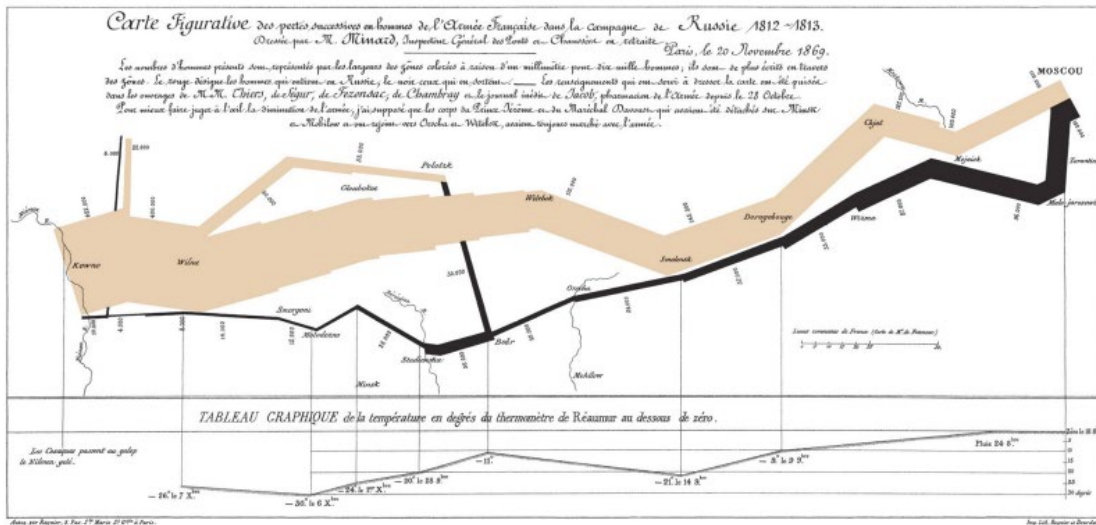2 lecture, 2 lab hrs, 3 cr
WI - Writing Intensive

Fig. 1. Minard's **Napoleon's March** is a strong example of a graphic that represents data over time.

Prerequisites:

Pre- or Co-Requisite: ENG 1101

Course Objectives

INSTRUCTIONAL OBJECTIVES	ASSESSMENT
For the successful completion of this course, students should be able to:	**Evaluation methods and criteria:**
Theory and Concept: Demonstrate knowledge of history and theory of information design	Demonstrate knowledge through research blog posts, reflective journal entries, and/or short quizzes and assignments
Theory and Concept: Exhibit an understanding of different views and definitions of information and information design as well as between data, information, and knowledge	Visually and verbally express abstract concepts and feelings
Physical: Understand concepts related to storage, transfer, and retrieval of information	Demonstrate knowledge through research blog posts, reflective journal entries, assignments, and/or short quizzes
Semantic: Understand principles of design for communication	Critique own work independently; develop and grow intellectually. Demonstrate knowledge through research blog posts, reflective journal entries, and/or assignments
Behavioral: Exhibit concepts of narrative, structure and storytelling –how information affects conduct	Demonstrate knowledge through research blog posts, reflective journal entries, and assignments
Project Design: Conduct research that includes data and survey collection	Demonstrate knowledge through organization and verbal communication for solving communication challenges
Project Design: Analyze, organize, and assess findings	Demonstrate knowledge through organization, visual storytelling, and verbal communication
Project Design: Define, design, and deliver final project	Demonstrate knowledge through organization, visual storytelling, and verbal communication

General Education Outcomes
https://facultycommons.citytech.cuny.edu/wp-content/uploads/2014/09/General-Education-Learning-Goals_March-2013.pdf

General Education Outcome:	How the outcome is covered:
Oral Communication Speaking: Demonstrate the ability to articulate ideas using relevant discipline-specific language	Evaluate through class discussion and critique, and presentations, if students use appropriate nomenclature to demonstrate creative, critical and technical decisions in project concepts and development
Thinking Critically Demonstrate the ability to evaluate evidence and apply reasoning to make valid inferences	Evaluate through class critique a determination of how well students were able to advance project concepts by applying evidence and using logic to make decisions
Application Manifest an ability to successfully apply concepts into both in-class and long-term assignments	Evaluate how well students absorbed and consequently applied the learning through oral and written critiques of projects
Social Interaction Demonstrate an understanding of professional ethics.	Evaluate through class discussion and written tests if students have developed a sensitivity and awareness of professional ethics.

Writing Intensive

This course is designated "Writing Intensive." Students will be writing every week, in class and on the OpenLab via weekly blog posts, peer-to-peer comments, and journal entries. Part of this practice will be presenting thoughtful reflections on their learning process in order to demonstrate a comprehension of relevant concepts. The instructor will provide timely feedback and guide students as they develop their project proposals and final presentations. Students will also submit critical written analyses of information design examples and readings leading to 1-2 page exploratory papers that use standard citation guidelines.

Research Project

The final project will cover material from lectures, class activities, weekly project work. Students will work in groups to implement data and research, explore tools, and create interactive design solutions that introduce the COMD, ARCH, CST Departments and the College to other students.

Deliverables: a final presentation that presents data, research, and a design solution/prototype

- **Data--** Find interesting data sets that tell a story, providing students a way to explore the three departments and City Tech.

- **Research--** Think about information design questions to improve an understanding of the similarities and differences between departments, as well as what knowledge would help improve students' college experience. Then use these ideas to design research, gather, and analyze data.
- **Design Solution--** Building upon methods learned throughout the semester, explore creative information design solutions and present a prototype that communicates data to the audience

Teaching/Learning Methods

The course will be co-taught with lectures from professors from the ARCH, COMD, and CST departments, as well as others periodically from disciplines that use data analytics, like the social sciences and math. Learning methods will include:

- Lectures and readings
- Discussion and critiques
- OpenLab Discussion Posts/Comments
- Peer-to-peer critique
- Research Journal
- Examples / Reference
- Formal Presentations
- Class and individual projects

Required Texts

Meirelles, Isabel. *Design for Information : An Introduction to the Histories, Theories, and Best Practices Behind Effective Information Visualizations*, Quarto Publishing Group USA, 2013. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/citytech-ebooks/detail.action?docID=3399922.

Floridi, Luciano. *Information : A Very Short Introduction*, Oxford University Press, 2010. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/citytech-ebooks/detail.action?docID=737413.

Goodfellow, Ian, Yushua Bengio, and Aaron Courville. *Deep Learning*, MIT Press, 2016. https://link-springer-com.citytech.ezproxy.cuny.edu/article/10.1007/s10710-017-9314-z

Specific books, magazines, and periodicals will vary with selected assignments. Instructor will provide a materials list.

Required Materials
Sketchbook
External drive or Dropbox account
ArcGIS Online Account

Grading

All projects, homework, in-class assignments, and discussion posts will be graded assignments. Research, independent preparation, class participation, and verbal analysis of precedent information design work and concepts will also be taken into consideration. There will be no final examination.

Grade Distribution
The following grade scale is recommended for use in this course. The exact distribution of percentages will be determined by the individual section instructor.

In this writing-intensive course, students are expected to write between 20-30 pages in total.

Posts / Discussion Comments 20% (1 page weekly)
Exploratory Papers 15% (1-2 pages each)
Research Journal 10% (1 page weekly)
Research Project & Presentation 25% (2-3 pages)
Assignments 15%
Productivity & Participation 15%

Academic Integrity Standards
Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion.

Student Accessibility
City Tech is committed to supporting the educational goals of enrolled students with disabilities. If you have or think you may have a disability, you may be eligible for reasonable accommodations or academic adjustments as provided under applicable federal, state, and/ or city laws. You may also request services for temporary conditions or medical issues under certain circumstances. If you have questions about your eligibility and/or would like to seek accommodation services and/or academic adjustments, please contact the Student Accessibility Center. [web site: https://www.citytech.cuny.edu/accessibility/ Email: Accessibility@citytech.cuny.edu]

Academic Writing Center (AG-18): Available for any student needing help. Students will find an array of services such as: study skills training; support for reading and writing skills; and assistance with mathematics, oral communication and computer applications. Both peer and faculty tutors are available for assistance. The Academic Support Center offers academic assistance to all students through the use of services including tutoring, workshops and access to computer-based programs. For further information, please visit the Academic Support Center on campus and on Blackboard.

Diversity and Inclusive Education Syllabus Statement:

This course welcomes students from all backgrounds, experiences and perspectives. In accordance with the City Tech and CUNY missions, this course intends to provide an atmosphere of inclusion, respect, and the mutual appreciation of differences so that together we can create an environment in which all students can flourish. It is the instructor's goal to provide materials and activities that are welcoming and accommodating of diversity in all of its forms, including race, gender identity and presentation, ethnicity, national origin, religion, cultural identity, socioeconomic background, sexuality and sexual orientation, ability, neurodivergence, age, and etc. Your instructor is committed to equity and actively seeks ways to challenge institutional racism, sexism, ableism and other forms of prejudice. Your input is encouraged and appreciated. If a dynamic that you observe or experience in the course concerns you, you may respectfully inform your instructor without fear of how your concerns will affect your grade. Let your instructor know how to improve the effectiveness of the course for you personally, or for other students or student groups. We acknowledge that NYCCT is located on the traditional homelands of the Canarsie and Lenape peoples.

Course Schedule

WEEK/ LEAD	LECTURE/ DEMO	LAB ACTIVITY/ HOMEWORK	PROJECT MILESTONES
1 CST/ ARCH	**Theory and Concepts: The Information Society** Topics Covered: What is information? What is Information Design? Students will explore definitions of information and information design and an overview of the history of information. Readings: Floridi, Luciano. Information : A Very Short Introduction, Oxford University Press, 2010. Chapter 1	Review course syllabus; course project is introduced via a mapping exercise to learn about the college and departments (ARCH, COMD, CST) Students identify at least three problematic areas in how the College currently attempts to orient new students to campus, and consider elements that could improve their experience. Are students presented with enough information to enable them to make informed decisions about study in following departments ARCH, COMD, CST	Students review and compare findings of mapping exercise; Students write in research journal, discussion posts and comments.

	Gleick, James. <u>The Information: A History, A Theory, A Flood.</u> Pantheon Books, 2011. Introduction. McLuhan, Marshall. <u>Understanding Media: The Extensions of Man</u>. 1964. Ch. 1 (optional)		
2 **CST**	**Theory and Concepts: Data vs. Information vs. Knowledge** Understanding data Quantitative and qualitative data; Transforming data into information; using information to make decisions and/or take actions. Readings: Floridi, Luciano. <u>Information : A Very Short Introduction</u>, Oxford University Press, 2010. Chapter 2 Goodfellow, Ian. *Deep Learning*. Intro.	Students create survey/interview each other; collect data about student knowledge of the college and specific departments (CST, COMD, ARCH).	Organize findings into categories and using tools presented in class; Students write in research journal, discussion posts and comments.
3 **CST**	**Theory and Concepts** Representing / Encoding/ Transforming Information for Storage and Communication Oral language Written language. Symbols Codes	Students create survey/interview each other (continued); collect data about student knowledge of the college and specific departments (CST, COMD, ARCH).	Organize findings into categories and using tools presented in class; Students add to research journal; submit discussion posts and comments.

	Information transformations and media Models of Communication Readings: Floridi, Luciano. Information : A Very Short Introduction, Oxford University Press, 2010. Chapter 3 DuBois, WEB. Data Portraits: Visualizing Black America: Review in Library of Congress Blog, Picture This.		
4 **CST**	**Physical** Information design for storage and retrieval: Text formats: -ASCII -Unicode Image formats: -Raster and vector formats -Bit depth -Compression algorithms: lossless and lossy Data architecture and patterns: SQL and noSQL databases; CSV files. Data structures: trees	1. Students will download and use *hexdump* to view the binary representation of files 2. Students will create a text file (with Notepad or TextEdit) and understand its ASCII representation in a computer with *hexdump*. 3. Students will create a PNG file (with www.pixilart.com) and understand its binary representation in a computer with *hexdump*.	Students will design strategies to store the data that they are collecting and analyzing for the project. Students will analyze the representation of data files created for the project in electronic media. Students add to research journal; submit discussion posts and comments.

| 5

CST | **Physical**

Information design for communication:

-Converting a message to a signal: packets, headers and trailers

-Signals and noise: error detection and correction codes (redundancies)

-Communication channel capacity

Information design for privacy:

-Brief history of ciphers

-Privacy over the internet: public key encryption. | 1. Students will encrypt simple messages using the Cesar cypher.

2. Students will read *The Gold Bug* by E. A. Poe and decode the cryptogram at the core of the story.

3. Using a Network analyzer, students will understand how information is transferred reliably over a network.

4. Students will understand the need of encryption for private communications. | Students compose a 1-2 page exploratory essay on topic related to concepts of Physical Information |
|---|---|---|---|
| 6

Guest Lecturer: Social Sciences | **Behavioral/Ethics** (to be assigned guest lecturer from the social sciences) Precedent lecture Demographics, City Data, College Data (Precedents) Ethics with data; data discernment and critical review of source material | Students review (analyze) information they have collected from interviews and survey (week 1 and 2)
- What conclusions can they make?
- What questions do they have?
Organize their findings and make available to the entire class. | Students add to research journal; submit discussion posts and comments. |

7 **ARCH**	**Behavioral/Ethics** (ibid) Story telling How to recognize patterns in information? And build a story.	Mid-Term:Presentations: Students present the Data they collected and share with the class how it has been stored and made available to all.	Students compose a 1-2 page exploratory essay on topic related to Behavioral Design
8 **ARCH**	**Semantic/Design** Qualitative Vs. Quantitative Exploration of four categories of graphic representation to help organize and structure quantitative information in ways that make concepts easier to understand. 1. Inform: convey a single data point 2. Compare: categorical data 3. Transform: over time or location 4. Organize: arranging content by groupings, rankings, or process Readings: Meirelles, Isabel, Intro, Ch. 1,2	From the interviews and survey (week 1 and 2) distinguish what is Qualitative Vs. Quantitative Students review the following website: https://datavizcatalogue.com/search.html Select a minimum of three charts that best visualize their findings from the interviews and survey (week 1 and 2)	Students add to research journal; submit discussion posts and comments.
9 **ARCH/ COMD**	**Semantic/Design** Exploring the role of type in establishing a visual hierarchy. And an overview of the principles of design and their impact on visual perception. 1. Repetition 2. Emphasis	Intro to ArcGis explore concepts of hierarchy of Information and related design decision making i.e. color palettes, type choices, etc.	Students compose a 1-2 page exploratory essay on topic related to Semantic Information

	3. Balance 4. Proximity/Unity 5. Proportion 6. Alignment Readings: Meirelles, Isabel, Ch. 3,4		

10
 	
COMD
	Examples of types of media and tools
	  Introduction to Cartography via ArcGIS Online
	  -locating places with geospatial coordinates
	  -attaching data to maps with shape files
	  -Visualizing data on maps with
	     - color, transparency, text, layers, and pop-up layers, symbols
		In Class Project:
		-Create a map of the campus for a scavenger hunt
		-create symbols for different places on campus
			Students add to research journal; submit discussion posts and comments.

11 **COMD**	**Examples of types of media and tools** Introduction to Tableau– visualizing analysis of data Read Ch. 1, *Mastering Tableau.* Beldwin David & LinkedIn Learning. *Tableau Essentials (online)*		Students add to research journal; submit discussion posts and comments.
12 **COMD**	**Project/Presentation work** Final project: students will work in groups drawing from the prior weeks'	Students start the first phase of their final project: **Research**. This is an opportunity to collect as much literature as possible	Students add to research journal; submit discussion posts and comments.

	material to implement data, research, explore tools, and create interactive design solutions that introduce COMD, ARCH, CST and the college to other students. Final presentation should: 1. Cite what is currently lacking in enabling new students to make informed decisions about their choice of study during orientation. 2. present a persuasive proposal with suggestions for addressing these inadequacies.	related to student orientation; Catalog, Welcome Center, City Tech Website, Departments, Demographics, and collect additional information that can help inform, and support the final presentation. **Research-** This is an opportunity to think about information design questions to understand the similarities and differences between departments and what information would help improve students' college experience.	
13 **COMD**	**Project/Presentation work**. Examination of findings from research in phase one. Sort data by: -Compare and contrast Departments - Categorize Physical resources vs. Digital resources	Continuing onto the second phase of the final project: **Data**. Students will use their research to examine and sort specific findings that would enable new students to make informed decisions about their choice of study during orientation. **Data-** Analyze interesting data sets that tell a story, providing students a way to explore the three depart-ments and City Tech.	Students add to research journal; submit discussion posts and comments.

14 **COMD**	**Project/Presentation work** This is the time to use the multiple methods that were discussed throughout the semester, create engaging creative solutions and visuals to help support a proposal and suggestions for addressing the diferent inadequacies.	In the third phase: Design Solution, students will take different creative approaches and plan visuals that present data in a friendly way that would be easily understood – using graphics packages, videos, AR, maps, and any visual aid.	Research Project: Pinup reviews and discussions Students add to research journal; submit discussion posts and comments.
15 **COMD** **ARCH** **CST**	**Final Presentations** Presentation Day showcasing the process: 1. Research 2. Data 3. Design Solution and Prototype	Final presentation must find solutions to or provide suggestions for better informing new students and improving the overall orientation experience at CityTech.	

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New York City
College of Technology
The City University of New York

February 24, 2023

Dear College Council:

I write on behalf of the Computer Systems Technology department in support of the proposed **Information Design Theories ID** course. This course has been approved by and will be offered through the Architectural Technology department. It has been developed with an inter-developmental team of ARCH, CST and COMD faculty during the last year, and will involve guest lectures by COMD, CST, and Social Science faculty.

Sincerely,

Ashwin Satyanarayana
Chair & Professor

CST Department
300 Jay Street
Brooklyn, NY 11201

NEW YORK CITY COLLEGE OF TECHNOLOGY
CITY TECH
300 JAY STREET, BROOKLYN, NY 11201

CUNY | THE CITY UNIVERSITY OF NEW YORK

February 24, 2023

Dear College Council Curriculum Committee,

The Communication Design department supports the proposed Information Design Theories ID course. This course will be offered through the Architectural Technology department. It has been developed with an inter-developmental team of ARCH, CST and COMD faculty during the last year, and will involve guest lectures by COMD, CST, and Social Science faculty.

Sincerely,

Dan Wong
Chair & Professor, Web Design
Communication Design Department
New York City College of Technology, CUNY

Assignment 01

This week we are going to look at the nature of maps and map making. Maps have a long history, and in fact are known to represent the oldest graphic design created by humans.

Content. You are asked to think about a map you would create for incoming students that shows both your department and certain places you like at the college. These places can include areas for socializing, studying, participating in club activities, or else resources you've found helpful—and so the map content extends beyond the classrooms and labs.

Often maps are considered exact representations of physical space. For this work, though, consider not just the space on campus but also your own experiences – so the map will include these personal encounters and knowledge as well as the physical space. See the attached maps from the children's tales, *Winnie the Pooh,* by A.A. Milne, 1922 (*left*), and *Cantino Planisphere* by a Portuguese mapmaker in 1502 (*right).*

Process. In the next week, walk around your department and the places you would include. Take notes and make a very rough map as you walk through the spaces. Next, create a sketch map – one that shows your department and it's resources along with the other college resources that you would highlight, and that includes your lived knowledge.

Goals – Learning Outcomes: To exhibit an understanding of different views and definitions of information and information design as well as between data, information, and knowledge