

RESEARCH & DEVELOPMENT METHODS

STRATEGIC DESIGN AND MANAGEMENT PARSONS THE NEW SCHOOL FOR DESIGN

Spring 2018, PSDS 2100
H CRN 5432 Mondays 3:50pm, 2 W 13th St. #1100
B CRN 3162 Tuesdays 3:50pm, 6 E 16th St. #904

Instructor: Ariel Churi churia@newschool.edu Office hours by appointment

Files: <https://github.com/arielchuri/Research-and-Development-Methods?files=1>

Course Description

This course is an introduction to the nature of design research, where students gain practical experience in the various research and design methodologies. Students work in teams to apply the different techniques, through a series of miniprojects and applications, conducting research outside the classroom and engaging users and experts to share their perspectives on research and design. Students also learn how to map out their research findings and to envision and articulate design driven interventions.

Learning Outcomes

By the successful completion of this course, students will be able, at an introductory level, to:

1. DEMONSTRATE COMPETENCE IN collecting and analyzing data.
2. DEMONSTRATE COMPETENCE IN articulating design related arguments that are logical and innovative.
3. DEMONSTRATE COMPETENCE IN strategically selecting and deploying research techniques.
4. DEMONSTRATE COMPETENCE IN critiquing arguments and prototypes, articulating logical and innovative concepts.
5. DEMONSTRATE COMPETENCE IN planning, prototyping, and evaluating design-related interventions and initiatives, whether presented as prototypes, concepts or arguments.
6. DEMONSTRATE COMPETENCE IN working as a team member.

Course Outline

Week 01

Introduction and Overview*

Mindmapping

Assignment:* Personal One Sheet

Week 02

Assignment: Class Information Diagram

Week 03

Artifacts & Affordances

Norman, Don: *The Design of Everyday Things*, Chapter 1 + Chapter 2

[Malcolm Gladwell: Choice, happiness and spaghetti sauce | TED Talk | [TED.com](https://www.ted.com/talks/malcolm_gladwell_on_spaghetti_sauce)] (https://www.ted.com/talks/malcolm_gladwell_on_spaghetti_sauce)

Week 04

Context & Observation

Norman, Don: *The Design of Everyday Things*, Chapter 3

Underhill, Paco: *Why We Buy*, Section 1: Instead of Samoa, Stores: The Science of Shopping

Assignment: Interface Mapping

Week 05

Interview & Ethnography

Lois Frankel - *Communicating Design Research Knowledge*

Underhill, Paco: *Why We Buy*, Section 2: Walk Like an Egyptian: The Mechanics of Shopping

RadioLab - *The Trust Engineers* **Assignment:** Shopping Observation

Week 06

Analysis & Mapping

Baty, Steve: *Deconstructing Analysis Techniques*

Corner, James *The Agency of Mapping*

This American Life - *Mapping* [Podcast]

Assignment: Ritual Ethnography

Week 07

Prototyping & Testing

Tom Kelly - *Ten Faces of Innovation*, Chapter 2: The Experimenter

Terry Winograd - *Bringing Design to Software*, Chapter 10: Cultures of Prototyping (Michael Schrage)

Assignment: Ritual Mapping

Week 08

Presentation & Critique

Assignment: Ritual Redesign

Week 09

Scoping & Co-Design

Liz Saunders - *Convivial Toolbox*, Chapter 3: How It Works: Generative Tools and Techniques

Gaver, William: *Cultural Probes and the Value of Uncertainty*

North Umbria University - _Design Collaboration [Website]

Assignment: Project Teams

Week 10

Complexity & Framing

Liz Saunders - *Convivial Toolbox*, Chapter 5: Making the Plan

Jamer Hunt - *How to Apply Eames's "Powers of 10" to Real-life Problems*

[Universal Methods of Design] (<http://site.ebrary.com.libproxy.newschool.edu/lib/newschool/detail.action?docID=10690608>) Jeremy Alexis - _What is Problem Framing in Design? [Video]

Assignment: Research Protocol

Week 11

Participation & Facilitation

Liz Saunders - *Convivial Toolbox* Chapter 6: Gathering Data In The Field

Assignment: Conduct Research

Week 12

Fictions & Scenarios

Grand, Simon: *Design Fiction, A Method Toolbox*

Assignment: Analyze Findings

Week 13

Project Work & Review

Design and Layout **Assignment:** Problem Statement

Week 14

Presentation & Critique

Assignment: Presentation

Week 15

Process & Reflection

Donald Schon - *The Reflective Practitioner*, Chapter 5: The Structure of Reflection in Action

Assignment: Final Report

Assessable Tasks

This course involves a series of short assignments that will be used to assess your understanding of the material covered. In addition, you will be responsible for writing a Final Report and contributing to a Final Presentation. Your participation in class discussion and other activities is also considered extremely important and will affect your final grade.

All assignments are listed on Canvas.

Required Reading / Media

[Malcolm Gladwell: Choice, happiness and spaghetti sauce | TED Talk | [TED.com](https://www.ted.com/talks/malcolm_gladwell_on_spaghetti_sauce)] (https://www.ted.com/talks/malcolm_gladwell_on_spaghetti_sauce)

Lois Frankel - *The Complex Field of Research* (available on Canvas)

Steven Chaffee - *Explication*(available on Canvas)

Norman, Don: *The Design of Everyday Things*

<http://www.radiolab.org/story/91640-choice/> Underhill, Paco: *Why We Buy*

Baty, Steve: *Deconstructing Analysis Techniques*

Corner, James *The Agency of Mapping*

This American Life -*Mapping* [Podcast]

Tom Kelly - *Ten Faces of Innovation*, Chapter 2: The Experimenter

Terry Winograd - *Bringing Design to Software*, Chapter 10: Cultures of Prototyping (Michael Schrage)

Liz Saunders - *Convivial Toolbox*

Gaver, William: *Cultural Probes and the Value of Uncertainty*

North Umbria University - *Design Collaboration* [Website]

Jamer Hunt - *How to Apply Eames's "Powers of 10" to Real-life Problems*

[Universal Methods of Design] (<http://site.ebrary.com.libproxy.newschool.edu/lib/newschool/detail.action?docID=10690608>)

Jeremy Alexis - *What is Problem Framing in Design?* [Video]

Grand, Simon: *Design Fiction, A Method Toolbox*

Mathan Ratnam - *Making an Engaging Presentation* [Slides]

Donald Schon - *The Reflective Practitioner*, Chapter 5: The Structure of Reflection in Action

[The Social Life of Small Urban Spaces : William H. Whyte : Free Download & Streaming : Internet Archive] (<https://archive.org/details/SmallUrbanSpaces>)

Recommended Reading

Zaccai, Gianfranco: *Art and Technology*

Universal methods of design : 100 ways to research complex problems, develop innovative ideas, and design effective solutions

[Reboot | Design Research: What Is It and Why Do It?] (<http://reboot.org/2012/02/19/design-research-what-is-it-and-why-do-it/>)

[Candy, Stuart 2011 - Strategic Foresight] (<https://www.scribd.com/doc/59578445/Candy-2011-Strategic-Foresight>)

Dubberly, Hugh: *The AnalysisSynthesis Bridge Model*

West, Suzanne: *Working With Style*

Ferzoco, Jeff: "The You City" Ascher,

Kate: "The Works: The Anatomy of a City"

Materials for class

- Post-It Notes
- Colored Markers
- Large paper (11"x17")
- Dry erase marker & cloth to erase

Making Center

The Making Center is a constellation of shops, labs, and open workspaces that are situated across the New School to help students express their ideas in a variety of materials and methods. We have resources to help support woodworking, metalworking, ceramics and pottery work, photography and film, textiles, printmaking, 3D printing, manual and CNC machining, and more. A staff of technicians and student workers provide expertise and maintain the different shops and labs. Safety is a primary concern, so each area has policies for access, training, and etiquette that students and faculty should be familiar with. Many areas require specific orientations or trainings before access is granted. Detailed information about the resources available, as well as schedules, trainings, and policies can be found at resources.parsons.edu.

Grading and Evaluation

Students' ability to meet the course's learning outcomes will be evaluated based on the following criteria:

- evidence of the students' comprehension of the assignments and course material
- evidence of research in the development of assignments
- engagement in the cross-course exploration that occurs between the Integrative Studio and Integrative Seminar
- participation in class discussion and online discussion
- participation in collaborative work including self- and peer-assessment through the workshop process
- improvement in the students' writing, critical reading and problem-solving abilities
- quality of work as evidenced in in-class exercises, drafts, final assignments, and the learning portfolio
- attendance in class and the timely completion of assignments

Final Grade Calculation

- Class Participation: 20%
- Product Survey: 5%
- Interface Mapping: 5%
- Shopping Observation: 5%
- Ritual Redesign: 15%
- Final Presentation (Group): 30%
- Final Report (Individual): 20%

[Project Grading Rubric] (<https://github.com/arielchuri/Research-and-Development-Methods/blob/master/Rubric.md>)

Grading Standards

A [4.0; 96–100%]

Work of exceptional quality, which often goes beyond the stated goals of the course

A- [3.7; 91–95%]

Work of very high quality

B+ [3.3; 86–90%]

Work of high quality that indicates substantially higher than average abilities

B [3.0; 81–85%]

Very good work that satisfies the goals of the course

B- [2.7; 76–80%]

Good work

C+ [2.3; 71–75%]

Above-average work

C [2.0; 66–70%]

Average work that indicates an understanding of the course material; passable Satisfactory completion of a course is considered to be a grade of C or higher.

C- [1.7; 61–65%]

Passing work but below good academic standing

D [1.0; 46–60%]

Below-average work that indicates a student does not fully understand the assignments; Probation level though passing for credit

F [0.0; 0–45%]

Failure, no credit

Grade of W

The grade of W may be issued by the Office of the Registrar to a student who officially withdraws from a course within the applicable deadline. There is no academic penalty, but the grade will appear on the student transcript. A grade of W may also be issued by an instructor to a graduate student (except at Parsons and Mannes) who has not completed course requirements nor arranged for an Incomplete.

Grade of WF

The grade of WF is issued by an instructor to a student (all undergraduates and all graduate students) who has not attended or not completed all required work in a course but did not officially withdraw before the withdrawal deadline. It differs from an "F," which would indicate that the student technically completed requirements but that the level of work did not qualify for a passing grade. The WF is equivalent to an F in calculating the grade point average (zero grade points), and no credit is awarded.

Grades of Incomplete

The grade of I, or temporary incomplete, may be granted to a student under unusual and extenuating circumstances, such as when the student's academic life is interrupted by a medical or personal emergency. This mark is not given automatically but only upon the student's request and at the discretion of the instructor. A Request for Incomplete form must be completed and signed by student and instructor. The time allowed for completion of the work and removal of the "I" mark will be set by the instructor with the following limitations:

Undergraduate students:

Work must be completed no later than the seventh week of the following fall semester for spring or summer term incompletes and no later than the seventh week of the following spring semester for fall term incompletes. Grades of "I" not revised in the prescribed time will be recorded as a final grade of "WF" by the Office of the Registrar.

Divisional, Program and Class Policies

Responsibility

Students are responsible for all assignments, even if they are absent. Late assignments, failure to complete the assignments for class discussion and/or critique, and lack of preparedness for in-class discussions, presentations and/or critiques will jeopardize your successful completion of this course.

Participation

Class participation is an essential part of class and includes: keeping up with reading, assignments, projects, contributing meaningfully to class discussions, active participation in group work, and coming to class regularly and on time.

Attendance

Faculty members may fail any student who is absent for a significant portion of class time. A significant portion of class time is defined as three absences for classes that meet once per week and four absences for classes that meet two or more times per week. During intensive summer sessions a significant portion of class time is defined as two absences. Lateness or early departure from class may also translate into one full absence.

Canvas (formerly Blackboard)

Use of Canvas (formerly Blackboard) may be an important resource for this class. Students should check it for announcements before coming to class each week.

Delays

In rare instances, I may be delayed arriving to class. If I have not arrived by the time class is scheduled to start, you must wait a minimum of thirty minutes for my arrival. In the event that I will miss class entirely, a sign will be posted at the classroom indicating your assignment for the next class meeting.

Resources

The university provides many resources to help students achieve academic and artistic excellence. These resources include:

- The University (and associated) Libraries: <http://library.newschool.edu>
- The University Learning Center: <http://www.newschool.edu/learning-center>
- University Disabilities Service: www.newschool.edu/student-disability-services/

In keeping with the university's policy of providing equal access for students with disabilities, any student with a disability who needs academic accommodations is welcome to meet with me privately. All conversations will be kept confidential. Students requesting any accommodations will also need to contact Student Disability Service (SDS). SDS will conduct an intake and, if appropriate, the Director will provide an academic accommodation notification letter for you to bring to me. At that point, I will review the letter with you and discuss these accommodations in relation to this course.

Academic Integrity

This is the university's Statement on Academic Integrity: "Plagiarism and cheating of any kind in the course of academic work will not be tolerated. Academic honesty includes accurate use of quotations, as well as appropriate and explicit citation of sources in instances of paraphrasing and describing ideas, or reporting on research findings or any aspect of the work of others (including that of instructors and other students). These standards of academic honesty and citation of sources apply to all forms of academic work (examinations, essays, theses, computer work, art and design work, oral presentations, and other projects)."

It is the responsibility of students to learn the procedures specific to their discipline for correctly and appropriately differentiating their own work from that of others. Compromising your academic integrity may lead to serious consequences, including (but not limited to) one or more of the following: failure of the assignment, failure of the course, academic warning, disciplinary probation, suspension from the university, or dismissal from the university.

Every student at Parsons signs an Academic Integrity Statement as a part of the registration process. Thus, you are held responsible for being familiar with, understanding, adhering to and upholding the spirit and standards of academic integrity as set forth by the Parsons Student Handbook.

Guidelines for Written Assignments

Plagiarism is the use of another person's words or ideas in any academic work using books, journals, internet postings, or other student papers without proper acknowledgment. For further information on proper acknowledgment and plagiarism, including expectations for paraphrasing source material and proper forms of citation in research and writing, students should consult the Chicago Manual of Style (cf. Turabian, 6th edition). The University Learning Center also provides useful on-line resources to help students understand and avoid plagiarism. See <http://www.newschool.edu/admin/writingcenter/>.

Students must receive prior permission from instructors to submit the same or substantially overlapping material for two different assignments. Submission of the same work for two assignments without the prior permission of instructors is plagiarism.

Guidelines for Studio Assignments

Work from other visual sources may be imitated or incorporated into studio work if the fact of imitation or incorporation and the identity of the original source are properly acknowledged. There must be no intent to deceive; the work must make clear that it emulates or comments on the source as a source. Referencing a style or concept in otherwise original work does not constitute plagiarism. The originality of studio work that presents itself as "in the manner of" or as playing with "variations on" a particular source should be evaluated by the individual faculty member in the context of a critique.

Incorporating ready-made materials into studio work as in a collage, synthesized photograph or paste-up is not plagiarism in the educational context. In the commercial world, however, such appropriation is prohibited by copyright laws and may result in legal consequences.

Electronic Devices

Use of electronic devices (phones, tablets, laptops) is permitted when the device is being used in relation to the course's work. All other uses are prohibited in the classroom and devices should be turned off before class starts.