Course Outline & Study Guide

Faculty	**School of Engineering**
Department	**Department of Architecture**
Course Title	**Research by Design**
Course Type	**Core**
Instructor's Name	**Dr. Konstantinos Avramidis**
ECTS	**8**

Course Code		**Semester**	**Autumn**
Prerequisites	**--**	**Required**	**--**

Level of Studies	Master
Language of Instruction και Examination	English

Teaching Methodology	Distance ⊠	Hybrid ☐

Evaluation	Reflective journal: 30% (2.5% x6) Critical reports: 60% (10% x6) Final exam: 10%
This study guide has been developed by the instructor of the course and it has been approved by the program coordinator	Dr. Konstantinos Avramidis Name of Program Coordinator Nadia Charalambous

Brief Course Summary & Course Purpose	The course offers an overview of design research methods. Through specific examples, it allows students to think of creative ways to conduct and (re)present their own research, encouraging them to develop their own personal approach. The course attempts to combine theory with practice and to show how architectural synthetic thinking—as a combination of written and design discourse—can become a research method leading to the production of new or the expansion of existing knowledge. The widely understood architectural creative practice is perceived as a way of questioning and critique, rather than as a response to given problems. The course deals with the ontological, epistemological and, primarily, methodological formation of design research that results from the respective experimentation in other scientific and/or artistic disciplines. Through an interdisciplinary perspective, the course aims to develop research that reflects critically through design and on it. Design research — like that of the arts — relies on a variety of tools to fully organize, process and express thought, and this course is organised around a selection of them.
Course Content (list of subjects to be delivered per week)	Weeks 1-2: Research & Design Weeks 3-4: Collection & Archiving Weeks 5-6: Spatial Writing & Imagetext Weeks 7-8: Book Object & Typography Weeks 9-10: Drawing & Installation Weeks 11-12: Photography & Instruments
Learning Outcomes	Upon successful completion of the course, students will be able to: 1. Knowledge: Recognize the nature and methods of design research across different disciplinary frameworks of knowledge. 2. Skills: Develop and extend design and creative writing skills in research that moves from problem-solving to problem-setting and critique. 3. Responsibility and autonomy: Practical experimentation with design research methods and bibliographic research tailored to the personal research interests of the students promoting autonomy.

Keywords
design research, problem-setting, critique
Teaching Schedule

Number of Lectures (Sessions)	Total: 7	Face to Face:	Distance: 7

	Evaluation Schedule
	Assignment 1: Week 1 – Week 2 **Assignment 2: Week 3 – Week 4** **Assignment 3: Week 5 – Week 6** **Assignment 4: Week 7 – Week 8** **Assignment 5: Week 9 – Week 10** **Assignment 6: Week 11 – Week 12** **Exam: Week 13 – Week 14**
	Teaching and Learning Tools
	Google Classroom

Contact Information (office Hours, method of contact etc)
Directly via email (avramidis.konstantinos@ucy.ac.cy) or, alternatively, through teleconferencing (arranged via email). Following sign-up, synchronous drop-in sessions can become available by-weekly.

Study Guide	
Session 1 (W 1-2)	Research & Design
Learning Objectives	This session aims to: 1. introduce learners to design-based research; 2. familiarize learners with the key terms and issues of design-based research; 3. expose learner to the key schools and projects of design-based.
Learning Outcomes	After this session learners will: 1. be familiar with the special nature of design-based research; 2. have developed a basic vocabulary of design-based research; 3. recognize the main schools of thought and key figures in design-based research.
Content	The first session attempts to raise, rather than answer, the question 'what is design-based research'. It maps the existing definitions and offers an overview of the main schools of thought as well as the most important tools used for this type of research. Through specific precedents we will get to know the pioneers in this field and begin to open up key issues related to the entire course, such as the relationship between theory and practice, text and image, subjectivity and objectivity, fact and fiction, analysis and proposal. This is to begin appreciating design as a means of problematization and critique, shifting the emphasis from object to subject, from result to process, and from answers to questions.
Self-evaluation activities	Self-evaluation activities: Reflective journal Interactive activities: Critical report
Bibliography	Mandatory: Fraser, M. (2013). Introduction. In *Design Research in Architecture: An Overview* (pp. 1-14). London: Routledge. Frayling, C. (1994). Research in Art and Design. *Royal College of Art Research Papers, 1*(1): 1-5. Mason, A. & Sharr, A. (2023). Introduction. In A. Mason & A. Sharrr (Eds.), *Creative Practice Inquiry in Architecture* (pp. 2-12). London: Routledge. Rendell, J. (2004). Architectural Research and Disciplinarity. *Architectural Research Quarterly, 8*(2): 141-147. Optional: Cheatle, E. (2017). *Part-Architecture: The Maison de Verre, Duchamp, Domesticity and Desire in 1930s Paris*. London: Routledge. Cross, N. (2006). *Designerly Ways of Knowing*. New York, NY: Springer.

De Walsche, J. & Komossa, S. (Eds.). (2016). *Prototypes and Paradigms: Architectural Research vis-à-vis Research-by-Design*. Delft: TU Delft.

Groat, L., & Wang, D. (2013). *Architectural Research Methods.* London: Wiley.

Hensel, M. (Ed.). (2012). *Design Innovation for the Built Environment: Research by Design and the Renovation of Practice*. London: Routledge.

Heron, K., & Hamman, C. (Eds.). (2016). *Adapt-r*. London: University of Westminster.

Hill, J. (2003). *Actions of Architecture: Architects and Creative Users*. London: Routledge.

Hill, J. (Ed.). (2003). *Journal of Architecture, 8*(2): *Opposites Attract: Research by Design.*

Leach, A., & Macarthur, J. (Eds.). (2009). *Architecture, Disciplinarity and the Arts.* Ghent: A & S Press.

Lucas, R. (2016). *Research Methods for Architecture*. London: Laurence King.

Manolopoulou, Y. (2013). *Architectures of Chance.* London: Routledge.

Ozga-Lawn, M., & Craig, J. (Eds.). (2015). *Architectural Research Quarterly, 19*(3): *Emerging Practices in Design Research*.

Schön, D. (1983). *The Reflective Practitioner: How Professionals Think in Action*. New York, NY: Basic Books.

Troiani, I., & Ewing, S. (Eds.). (2020). *Visual Research Methods in Architecture*. Bristol: Intellect.

van Schaik, L., & Johnson, A. (Eds.). (2012). *By Practice, by Invitation*. Barcelona: Actar.

Wiszniewski, D., et al (Eds.). (2019). *Drawing On* (3): *Architecture Design Research.*

Hours of Study including self-evaluation activities and or assignment's preparation	Lecture: 3h self-evaluation activities: 5h Studying: 10h Interactive activities: 15h
Keywords:	definitions, schools, tools, critique, knowledge, reflection, precedents, position, disciplinarity, representation

Study Guide	
Session 2 (W 3-4)	Collection & Archiving
Learning Objectives	This session aims to: 1. introduce learners to the gesture of collecting in different settings and the ways in which it frames research; 2. expose learners to a series of projects that use the archive as a design practice; 3. encourage learners challenge the objective nature of collecting and archiving.
Learning Outcomes	After this session learners will:

	1. have an awareness related to the importance of collecting information in design research; 2. have informed position to critique curatorial and design practices based on archiving and collection; 3. have developed skills in acquiring and archiving information creatively.
Content	This session focuses on one of the most fundamental gestures in research: collection. This gesture, and the researcher involved in the practice, is often considered to be objective. The session addresses the object-subject dualism through a series of examples, from the birth of the collector and the "cabinet of curiosities" to contemporary artists (e.g., Joseph Kosuth, Gerhard Richter). It draws linkages between selection and control as well as possession and power over collecting reality and discusses found object and collage as modes of critique. The accent is on the inherent futility associated with the rational and objective organization and understanding of the world. The ways in which we collect reality is deeply personal challenging the seemingly strict taxonomic systems, leading to what Jean Baudrillard argues that "what you really collect is always yourself"
Self-evaluation activities	Self-evaluation activities: Reflective journal Interactive activities: Critical report
Bibliography	Mandatory: Baudrillard, J. (1996/1968). A Marginal System: Collecting. In *The System of Objects* (J. Benedict, Trans.) (pp. 85-106). London: Verso. Derrida, J. (1996). *Archive Fever: A Freudian Impression* (E. Prenowitz, Trans.). Chicago: University of Chicago Press. Ioannidou, E. (2020). Home no. 7 (a sample of). *Interiors: Design/Architecture/Culture, 11*(3): 1-16. Optional: Appadurai, A. (2003). Archive and Aspiration. In J. Brouwer, A. Mulder & S. Charlton (Eds.), *Information is Alive: Art and Theory on Archiving and Retrieving Data* (pp. 14-25). Rotterdam: NAi Publishers. Benjamin, W. (2006/1931). Unpacking My Library: A Talk about Book Collecting. In *Illuminations: Essays and Reflections* (H. Zohn, Trans.; H. Arendt Ed.) (pp. 59-68). New York, NY: Schocken Books. Buchloh, B. (1999). Gerhard Richter's "Atlas": The Anomic Archive. *October, 88*: 117-145. Clarke, P., Jones, S., Kaye, N., & Linsley, J. (Eds.). (2018). *Artists in the Archive: Creative and Curatorial Engagements with Documents of Art and Performance*. London: Routledge. Didi-Huberman, G. (2010). *Atlas: How to Carry the World on One's Back?* (S. B. Lillis, Trans.). Madrid: Museo Nacional Centro de Arte Reina Sofía. Elsner, J., & Cardinal, R. (Eds.). (1994). *The Cultures of Collecting*. London: Reaktion Books.

Enwezor, O. (Ed.). (2008). *Archive Fever: Uses of the Document in Contemporary Art.* New York: Steidl Publishers.

Ewing, S., McGowan, J. M., Speed, C., & Bernie, V. C. (Eds.). (2011). *Architecture and Field/work.* London: Routledge.

Foster, H. (2004). An Archival Impulse. *October, 110*: 3-22.

Goffi, F. (Ed.). (2021). *Routledge Companion to the Lives of Architectural Drawings and Models: From Translating to Archiving, Collecting and Exhibiting*. London: Routledge.

Goffi, F. (Ed.). (2022). *Routledge Companion to the Lives of Architectural Drawings and Models: From Translating to Archiving, Collecting and Exhibiting*. London: Routledge.

Merewether, C. (Ed.). (2006). The Archive. London: Whitechapel Gallery.

Schaffner, I., & Winzen, M. (Eds.). (1998). *Deep Storage: Collecting, Storing and Archiving in Art*. Munich: Prestel.

Spieker, S. (2008). *The Big Archive: Art from Bureaucracy*. Cambridge, MA: MIT Press.

Hours of Study including self-evaluation activities and or assignment's preparation	Lecture: 3h self-evaluation activities: 5h Studying: 10h Interactive activities: 15h
Keywords:	selection, document, preservation, taxonomy, found object, fieldwork, possession

Study Guide	
Session 3 (W 5-6)	Spatial Writing & Imagetext
Learning Objectives	This session aims to: 1. introduce learners to semiotic theories related to design; 2. make learners aware of different spatial and creative writing practices; 3. expose learners to the peculiar adjacency between image and text in a historical perspective.
Learning Outcomes	After this session learners will: 1. have developed a basic understanding of semiotics systems and their application on design; 2. acquired skills in treating writing in more imaginative and spatial ways; 3. be able to read images and design texts.
Content	When we think of the writing, text automatically comes to mind. And when we refer to texts, we automatically think of a number of characters and words written in order within the pages of a book or word. Text is often considered the opposite of image, and writing the opposite of design. In this session this conception is challenged by raising the following questions: instead of

	designing spaces and writing texts, what happens if we change these conceptual pairs, that is, if we write spaces and design texts? The focus is on the design of the text and the textuality of design.
Self-evaluation activities	Self-evaluation activities: Reflective journal Interactive activities: Critical report
Bibliography	Mandatory: Berger, J. (1972). *Ways of Seeing*. London: Penguin. Flusser, V. (2009/1985). The Gesture of Writing. *Flusser Studies, 8,* 1-18. Mitchell, W. J. T. (1996). Word and Image. In R. S. Nelson & R. Shiff (Eds.), *Critical Terms for Art History* (pp. 47-56). Chicago, IL: University of Chicago Press. Rendell, J. (2013). A Way with Words: Feminists Writing Architectural Design Research. In M. Fraser (Ed.), *Design Research in Architecture: An Overview* (pp. 117-136). London: Routledge. Optional: Avramidis, K. (2014). Public [Ypo]graphy: Notes on Materiality and Placement. In M. Karra (Ed.), *No Respect* (pp. 21-34, 85-96). Athens: Onassis Cultural Centre. Christin, A. M. (Ed.). (2002). From Image to Writing. In A. M.Christin (Ed.), *A History of Writing: From Hieroglyph to Multimedia* (pp. 9-14). Paris: Flammarion. Fraenkel, B. (2002). Signatures. In A. M. Christin (Ed.), *A History of Writing: From Hieroglyph to Multimedia* (pp. 315-317). Paris: Flammarion. Frichot, H., & Stead, N. (Eds.). (2020). *Writing Architectures: Ficto-Critical Approaches*. London: Bloomsbury. Harris, R. (1995). *Graphic Space. In Signs of Writing* (pp. 121-127). London: Routledge. Harris, R. (2001). *On the Dotted Line. In Rethinking Writing* (pp. 160-183). London: Continuum. Hilevaara, K., & Orley, O. (Eds.). (2018). *The Creative Critic: Writing as/about Practice*. London: Routledge. Johannessen, C. M., & Van Leeuwen, T. (Eds.). (2018). *The Materiality of Writing: A Trace Making Perspective*. London: Routledge. Kress, G., & van Leeuwen, T. (1996). Materiality and Meaning. In *Reading Images: The Grammar of Visual Design* (pp. 215-238). London: Routledge. Neef, S. (2011/2008). *Imprint and Trace: Handwriting in the Age of Technology* (A. Mathews, Trans.). London: Reaktion Books.
Hours of Study including self-evaluation activities and or assignment's preparation	Lecture: 3h self-evaluation activities: 5h Studying: 10h Interactive activities: 15h
Keywords:	spatial writing, imagetext, narrative, ergodic writing, creative writing, trace

Study Guide	
Session 4 (W 7-8)	Book Object & Typography
Learning Objectives	This session aims to: 1. introduce learners to the book as a design practice; 2. expose learners to a series of artists books examples; 3. make learners aware of the meaning and impact that book making and typographic elements have in conducting and presenting design research.
Learning Outcomes	After this session learners will: 1. be able to perceive the creative dimensions of books; 2. be aware of the history artist books and able to classify them; 3. have developed an understanding of the spatial qualities of book objects and typographic elements and test them to their own work.
Content	"The book is a sequence of spaces [...] it is also a sequence of moments in time". This is how conceptual artist Ulises Carrión opens his series of aphorisms, taking us to the heart of the problematic of this session. With an emphasis on artist books, we will challenge the dominant perception of books as spaces capable of exclusively containing texts. The book, as a physical object with its codex structure, allows us a multitude of other explorations. In this session we will examine the book as a means of (re)producing space; the book as space, time and material but also the spatiality, temporality and materiality of the book. Through its main features — such as the page, binding, and accumulation — the book is understood as a spatial practice.
Self-evaluation activities	Self-evaluation activities: Reflective journal Interactive activities: Critical report
Bibliography	Mandatory: Avramidis, K. (2022). Buildings as Unsolicited Drawing Surfaces: An Atlas of Athenian Inscriptions. In F. Goffi (Ed.), *Routledge Companion to the Lives of Architectural Drawings and Models: From Translating to Archiving, Collecting and Exhibiting* (pp. 47-61). London: Routledge. Carrión, U. (1975). *The New Art of Making Books*. New York, NY: Center for Book Arts. Macken, M. (2018). Reading Space: Bookness and Architecture. In *Binding Space: The Book as Spatial Practice* (pp. 25-40). London: Routledge. Optional: Bazarnik, K. (2016). *Liberature: A Book-bound Genre.* Krakow: Jagiellonian University Press.

	Bury, S. (1995). *Artists' Books: The Book as a Work of Art, 1963-1995.* London: Scolar Press. Drucker, J. (1995). *The Century of Artists' Books.* New York, NY: Granary Books. Hubert, J. & Hubert, R. (1999). *The Cutting Edge of Reading: Artists' Books.* New York, NY: Granary Books. Lyons, J. (Ed.). (1985). *Artists' Books: A Critical Anthology and Sourcebook.* Rochester: Visual Studies Workshop. Nunberg, G. (Ed.). (1996). *The Future of the Book.* Berkeley, CA: University of California Press. Tavares, A. (2016). *The Anatomy of the Architectural Book.* Zurich: Lars Müller. Vinegar, A. (2008). Reducks, 1972, 1977. In *I am a Monument: On Learning from Las Vegas* (pp. 111-171). Cambridge, MA: MIT Press. Wasserman, K. (2011). *The Book as Art: Artists' Books from the National Museum of Women in the Arts.* New York, NY: Princeton Architectural Press.
Hours of Study including self-evaluation activities and or assignment's preparation	Lecture: 3h self-evaluation activities: 5h Studying: 10h Interactive activities: 15h
Keywords:	artist book, narrative, inscription, codex, architexture, hieroglyph

Study Guide	
Session 5 (W 9-10)	Drawing & Installation
Learning Objectives	This session aims to: 1. introduce learners to projection systems and their impact on visual perception and design; 2. make learners aware of drawing's role as a means of prescribing but also documenting space; 3. expose learners to drawing's ability to construct space and its relationship with exhibitions, design and writing.
Learning Outcomes	After this session learners will: 1. be in a position to critically appraise different projection systems and the worldviews associated with them; 2. have developed interpretive skills in relation to drawings and art installations; 3. perceive the experiential corporeal dimensions of drawings and installations and acquire a vocabulary to articulate and critique them.
Content	Drawing is considered to be the par-excellence medium of design. This session focuses on drawing of space and the space of the drawing. The aim is to challenge the projective character of drawing that understands it as an end

	product. Drawing is not merely an instrument to describe and specify a design which will be; it is also a tool that allows us represent, document and interpret what is already there – it is an exploratory device. Drawing not only documents but also transcribes space and, at the same time, it may construct space moving from 2D to 3D. The experience of drawing as a construct foregrounds it site-specificity and corporeal aspect that are often ignored.
Self-evaluation activities	Self-evaluation activities: Reflective journal Interactive activities: Critical report
Bibliography	Mandatory: Evans, R. (1997). Translations from Drawing to Building. In *Translations from Drawing to Building and Other Essays* (pp. 153-194). London: Architectural Association. Frascari, M. (2011). Drawings as Loci for Thought. In *Eleven Exercises in the Art of Architectural Drawing* (pp. 35-44). London: Routledge. Kenniff, T. & Lévesque, C. (2021). *Inventories: Documentation as a Design Project* (pp. 8-21) (Montreal: University of Quebec at Montreal). Optional: Belting, H. (2012). *Florence and Baghdad: Renaissance Art and Arab Science* (D. Lucas Schneider, Trans.). Cambridge, MA: Belknap Press. Chorpening, K., & Fortnum, R. (Eds.). (2020). *A Companion to Contemporary Drawing*. London: Wiley. Emmons, P. (2019). *Drawing Imagining Building: Embodiment in Architectural Design Practices.* London: Routledge. Kaye, N. (2000). *Site-specific Art: Performance, Place, and Documentation.* London: Routledge. Kwon, M. (2002). *One Place after Another: Site-specific Art and Locational Identity.* Cambridge, MA: MIT Press. Lucas, R. (2018). The Discipline of Tracing in Architectural Drawing. In C. M. Johannessen & T. Van Leeuwen (Eds.), *The Materiality of Writing: A Trace Making Perspective* (pp. 116-137). London: Routledge. Lucas, R. (2019). *Drawing Parallels: Knowledge Production in Axonometric, Isometric and Oblique Drawings*. London: Routledge. Manolopoulou, Y. (2011). Enaction Drawing. A. Beim & M. R. Thomsen (Eds.), *The Role of Material Evidence in Architectural Research: Drawings, Models, Experiments* (pp. 28-37). Copenhagen: Royal Danish Academy of Fine Arts. Pérez-Gómez, A, & Pelletier, L. (1998). *Architectural Representation and the Perspective Hinge.* Cambridge, MA: MIT Press. Scolari, M. (2012). *Oblique Drawing: A History of Anti-Perspective* (J. C. Palandri, Trans.). Cambridge, MA: MIT Press. Soberg, M. & Hougaard, A. (Eds.). (2020). *The Artful Plan: Architectural Drawing Reconfigured.* Basel: Birkhauser.
Hours of Study including self-evaluation activities	Lecture: 3h self-evaluation activities: 5h

and or assignment's preparation	Studying: 10h Interactive activities: 15h
Keywords:	projection, documentation, representation, notation, abstraction, site-specificity, trace, gesture, surface

Study Guide	
Session 6 (W 11-12)	Photography & Devices
Learning Objectives	This session aims to: 1. introduce learners to technical images and their uses; 2. expose learners to the mediating power and reproductive role of technological devices; 3. make learners challenge the evidential and objective role of photography.
Learning Outcomes	After this session learners will: 1. interpret technical images and their temporal dimensions; 2. have developed an understanding of the agency embedded in technological devices; 3. use photographs critically in research and aware of how meaning is constructed as an image-text interplay.
Content	Photography is often considered — especially compared to painting and drawing — as the most objective way of recording and documenting reality. This session challenges this conception by bringing together the material reality it represents, namely what we see, with the concept of the gaze, i.e. the way in which we see it. Photography is studied as a gesture in which many factors are involved (photographer, camera device, photographic frame, viewers). Through a series of examples based on photographic technologies the session is concerned with the concept of visual perception as well as the instruments or devices that allow us to reveal an invisible but real landscape, as well as how two-dimensional technical images can be translated into three dimensions. That is, we are interested in how the technical image can capture the invisible as well as the techniques that make visible or reconstruct a reality. We will discuss the relationship between photography and its reproducibility and will emphasize its materiality as well as the context in which it appears. Finally, we will look at some examples that introduce the fourth dimension, i.e. that of time.
Self-evaluation activities	Self-evaluation activities: Reflective journal Interactive activities: Critical report

Bibliography	Mandatory: Flusser, V. (2011/1983). The Gesture of Photographing. *Journal of Visual Culture, 10*(3), 279-293. Benjamin, W. (1972/1931). A Short History of Photography. *Screen, 13*: 5-26. Flusser, V. (2011). To Envision. In *Into the Universe of Technical Images* (N. A. Roth, Trans.) (pp. 33-39). Minneapolis, MN: University of Minnesota Press. Optional: Benjamin, W. (1999/1936). The Work of Art in the Age of Mechanical Reproduction. In J. Evans & S. Hall (Eds.), *Visual Culture: The Reader* (pp. 72-79). London: Sage. Berger, J. (2013). *Understanding a Photograph* (D. Geoff, Ed.). London: Penguin. Berger, J., & Mohr, J. (2013). *Another Way of Telling: A New Theory of Photography.* London: Bloomsbury. Braun, M. (1992). *Picturing Time: The Work of Etienne-Jules Marey* (1830-1904). Chicago, IL: University of Chicago Press. Braun, M. (2010). *Eadweard Muybridge.* London: Reaktion Books. Burke, P. (2001). *Eyewitnessing: The Uses of Images as Historical Evidence*. London: Reaktion. Dagognet, F. (1992). *Etienne-Jules Marey: A Passion for the Trace* (R. Galeta & J. Herman, Trans.). Cambridge, MA: MIT Press. Elkins, J. (2011). *What Photography Is*. London: Routledge. Enwezor, O. (2008). Archive Fever: Photography between History and the Monument. In O. Enwezor (Ed.), *Archive Fever: Uses of the Document in Contemporary Art* (pp. 12-51). New York, NY: International Center of Photography. Mitchell, W. J. (1994). *The Reconfigured Eye: Visual Truth in the Post-Photographic Era.* Cambridge, MA: MIT Press. Tagg, J. (2009). T*he Disciplinary Frame: Photographic Truths and the Capture of Meaning*. Minneapolis, MN: University of Minnesota Press. Weizman, E. (2017). *Forensic Architecture: Violence at the Threshold of Detectability.* New York, NY: Zone Books.
Hours of Study including self-evaluation activities and or assignment's preparation	Lecture: 3h self-evaluation activities: 5h Studying: 10h Interactive activities: 15h
Keywords:	evidence, reproduction, technical image, reconstruction, temporality

Study Guide	
Session 7 (W 13-14) EXAM PERIOD	Submissions
Learning Objectives	This session aims to: 1. introduce learners to the nature and methods of design research;

	2. expose learners to practical critical research methods of designing and/or writing; 3. encourage learners test their own design methods and bibliographic references and summarize a subject of the choice.
Learning Outcomes	After this session learners will: 1. be able to demonstrate understanding of the nature and methods of design research across different disciplinary frameworks of knowledge; 2. have developed and/or extend design and creative writing skills in research that moves from problem-solving to problem-setting and critique; 3. have experimented with design research methods and bibliographic research tailored to their personal research interests.
Content	This last session is concerned with a practical assignment and creative reworking, re-synthetization and design of the work produced over the course. It draws from the all the material covered in this class.
Self-evaluation activities	Interactive activities: Critical report
Bibliography	Mandatory: Hill, J. (2007). Criticism by Design. In J. Rendell, J. Hill, M. Fraser & M. Dorrian (Eds.), *Critical Architecture* (pp. 165-169). London: Routledge. Optional: Campkin, B., & Duijzings, G. (Eds.). (2016). *Engaged Urbanism: Cities and Methodologies.* London: I.B. Tauris. Cross, N. (2006). *Designerly Ways of Knowing*. New York, NY: Springer. Fisher, E., & Fortnum, R. (Eds.). (2014). *On Not Knowing: How Artists Think*. London: Black Dog. Hougaard, A.K., Søberg, M., Torp, K.A., Lorentsen, E., Thorborg, C., & Grønlund, L. (2016). *Refractions: Artistic Research in Architecture.* Copenhagen: Architectural Publisher B. Leavy, P. (2015). *Method Meets Art: Arts-Based Research Practice*. London: Guildform Press. Leavy, P. (2017). *Research Design: Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches*. New York, NY: Guilford Press. Lury, C., Fensham, R., Heller-Nicholas, A., Lammes, S., Last, A., Michael, M., & Uprichard E. (2018). *Routledge Handbook of Interdisciplinary Research Methods.* London: Routledge. Macleaod, K., & Holdridge, L. (Eds.). (2006). *Thinking Through Art: Reflections on Art as Research.* London: Routledge.

	Rodgers, P. & Yee, J. (Eds.). (2015). *The Routledge Companion to Design Research*. London: Routledge. Sharr, A., (2012). (Ed.). *Reading Architecture and Culture: Researching Buildings, Spaces and Documents*. London: Routledge. Sullivan, G. (2005). *Art Practice as Research: Inquiry in Visual Arts*. Thousand Oaks, CA: Sage. Vaughan, L. (2020). *Practice-based Design Research*. London: Bloomsbury.
Hours of Study including self-evaluation activities and or assignment's preparation	Studying: 12h Interactive activities: 15h
Keywords:	design research, problem-setting, critique