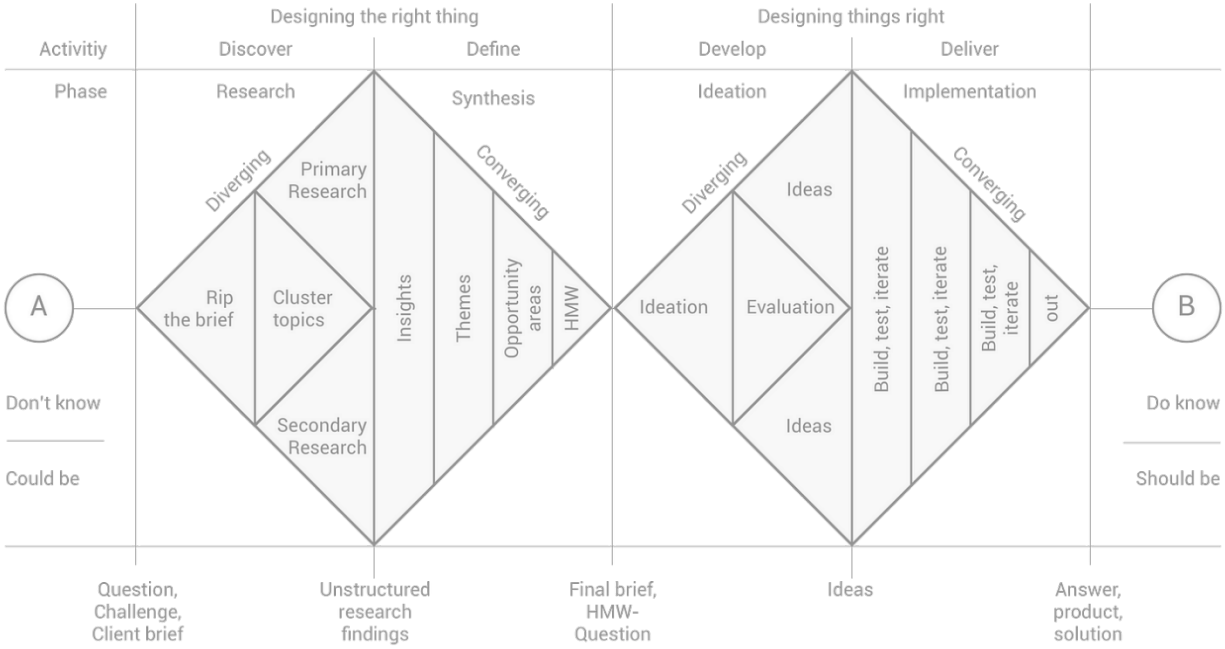
ID464: COMPRENSIVE STUDIO/THESIS



Double Diamond by Dan Nessler (after the British Design Council version)

Professor	Course Info
Hannah Berkin-Harper Hb377@njit.edu Office Hours: M/Th 10a-12p or by appointment Office: Weston 522 Lab: Weston 661	Meets: Monday+Thursday 1-5:20pm Location: Weston 661 Canvas: https://njit.instructure.com/courses/44188 Prerequisites: ID 364 and PHYS 102

Bulletin Description

A comprehensive studio with projects (including multi-disciplinary projects) of advanced design and complexity. Students will work to initiate research and development of projects within the studio to demonstrate a full range of professional competencies, including but not limited to, the ability to independently critique work in progress. Completed work and presentation materials are expected to be exhibitable quality.

Detailed Description

In the Industrial Design Comprehensive | Thesis Studio you will continue to hone your design skills and problem-solving ability. This studio is a forum by which you will explore a unique design project of personal interest within a stimulating, supportive and challenging environment of research, critique, discussion, argument, and debate.

This studio will give you an opportunity to enrich the field of design with your original contribution and you will be able to contemplate a wide range of topics reflecting your own interest. You will be responsible for developing a proposal and work independently under the guidance of the instructor and your external advising committee. Your project will involve all design phases, including planning, research, development, finalization, specification, and documentation. Successful design work will be a comprehensive solution that addresses emotional, experiential, and functional design issues. It will be delivered in a professional manner.

Course Objectives:

- Develop a sophisticated and complex project that is rigorous through all aspects of the design process resulting in a highly resolved and comprehensive design
- Self-guide the design process including defining research, scope of work, identifying constraints, writing a project brief, production schedules, tools and technologies.
- Work professionally with outside mentors and experts.
- Formulate an intellectual and artistic position on topics of industrial design, user interactions, and/or fabrication/material technologies.
- To improve student's ability to analyze, evaluate and apply critical thought through the balance of cultural, social, environmental and economic factors.
- Students will be able to communicate design intent effectively through the appropriate use of words, physical objects and images.

.

OVERVIEW

PHASE 1	2 WEEKS
Research Methods Brief Writing	Finalize topics and create design briefs and research plans.

PHASE 2	6 WEEKS
Research + Ideation	Execute research plan, ideate build experimental prototypes and iterate,refine focus

PHASE 3	6 WEEKS
Refinement + Prototyping	Synthesize Research, design refinement, materiality, fabrication.

PHASE 4	THROUGHOUT
Documentation	Document and upload process continuously

PHASE 5	1 WEEK
Exhibition + Presentation	Final presentation, book, and exhibition

Capstone Final Deliverables

Capstone Project Prototypes
Capstone Project Documentation (pdf book)
Capstone Project Presentation to an external professional audience for critique and defense.

SUGGESTED READING

- Lupton, Ellen. *Graphic Design Thinking: Beyond Brainstorming.*
- *IDEO toolkit*
- IDEO *Research Ethics* (Canvas)
- Rodgers, Paul A and Joyce Yee. *The Routledge Companion to Design Research* (Canvas)

Expectations + Responsibilities

- This is a 4.5 hour class. The format will change often between lectures, critiques, small group work, individual meetings, and a combination of any of these. We will take breaks and discuss how best to use these breaks.
- Please come on time and prepared for the format of the day. Pin up 2D work and unpack 3D work at least 5 minutes before class. Always bring sketch paper, and and drawing implements, as well as anything specific noted for that day.
- Please come ready to discuss your work with clear, prepared presentations and engage your classmates. This discussion is critical to your development as designers.
- Most importantly: Take risks and push boundaries. You will be amazed by what you can achieve!
- Zero Tolerance No Sexism. No Racism. No Ableism. No Ageism. No Homophobia. No Fatphobia. No Transphobia. No Hatefulness. (What else?) We, including myself, are all participating in building the culture of our studio together. (credit: Prof. Amanda Huynh)
- No phones, no laptops during lectures or critique (Exceptions for documentation or accommodations as necessary). Please feel free to step outside if you need to address something pressing on your device.
- Please try not to eat during class. We will take scheduled breaks.

Course Policies

Absences

- Attendance should be taken during each class and is an explicitly required component of all classes for all students. After three unexcused absences students may be docked one-half grade for each subsequent unexcused absence. In other words, if the final grade would have been an “A”, it results in a “B+”. Similarly, a “B+” is reduced to a “B”, and so on. There is a one-half grade penalty for each absence after the third.

- In the case of excessive or ongoing illness or other special circumstance, notification should be given to the instructor as soon as possible and before the date in question. Students who miss class due to bereavement, medical concerns, military activity, legal obligations, or university-sponsored events must provide the Office of the Dean of Students with official and verifiable documentation related to the absences within 14 days a complete an online: Student Absence Excuse Request. Once the absence has been verified, the Dean of Students will communicate on behalf of the student with the instructors.

- The instructor must be notified at the beginning of the semester if a student will miss a session (or more) due to religious observance.

- Student-athletes are required to attend all classes. A student-athlete may only miss class when representing NJIT in intercollegiate competition. No student-athlete may miss any regularly scheduled classes for any practice activities.

Generative AI

- Student use of artificial intelligence (AI) is permitted in this course for certain assignments and activities during the ideation phases of projects. You may also use it to create certain collateral materials for project with explicit permission (ask!) Additionally, if and when students use AI in this course, the AI must be cited as is shown within the NJIT Library AI citation page for AI. If you have any questions or concerns about AI technology use in this class, please reach out to your instructor prior to submitting any assignments.

Documentation

- Students are expected to check their NJIT email account and Canvas on a regular basis. Please create a google drive folder and share it with the professor. Periodically, I will ask for you to update documentation on Canvas. Documentation is crucial in understanding how one navigates design challenges over time. Be sure to preserve your work in good condition and devise ways to organize your process in an understandable and presentable fashion. At the end of each project phase, you will be expected to reflect on your learnings. This will be invaluable in preparation for your portfolio and for end-of-semester presentations.

- You are responsible for documenting your work in the form of digital images uploaded to a Google Drive created by the professor. All work must also be posted on Kepler4 at the end of the semester. This is mandatory – failure to do so will result in a failing grade for the class.

NJIT Policies:

Academic Integrity: Detailed guidance on academic integrity can be found in this best practices document. Please note that any actual or alleged violation of the University Code on Academic Integrity should be formally processed through the Office of the Dean of Students. Faculty and instructional staff should be proactive on upholding academic integrity but should not handle violations on their own. All syllabi must contain the following statement on academic integrity:

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: NJIT Academic Integrity Code.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu"

Late Withdrawals: Withdrawals after the 10th week require documented extenuating circumstances via the Dean of Students Office. The course instructor and the Dean of Students are the principal points of contact for students considering withdrawing from a course.

- **Instructor note**: If you are considering withdrawing please contact me first.

Grading consideration for capstone project:

- How the project reflects the problem that has been chosen by the student
- How the project addresses aspects of Manufacturing, Market, User, Sustainability, Form, Color, and Ideation
- How the elements of the project interrelate to develop a satisfying composition/object or system
- Quality of the technical execution of all elements

Capstone Project Documentation (book):

- A clearly stated thesis
- Careful and logical use of textual evidence to support students' thesis
- Careful organization of ideas and careful reasoning
- Correct documentation of sources
- A strong and clear conclusion
- Effective and clear writing, including correct grammar, precise word choice, varied sentence patterns, etc.

Capstone Project Presentation

- A clearly stated thesis
- Strong verbal and visual skills of presentation
- Careful organization of ideas and careful reasoning
- Professional delivery and appearance.

Grades will be given out for each phase of your project. Each project is weighted based on duration and complexity. Your project grades will reflect how well your work responds to the assignment based on the following criteria:

•PROCESS: Planning, ideation, exploration, iteration, meeting deadlines, work process and uploads.

•FORM: Form logic, clarity, materiality, creativity.

•TECHNIAL: Quality and complexity.

• MEANING: Clarity of intent and communication of point of view.

In addition, the following will also be considered in determining your grades:

• CONTRIBUTION, PARTICIPATION AND PRESENCE Do you actively participate on a regular basis? Have you contributed to the conversation about your and others' work? Are you open to feedback?

• ENGAGEMENT AND POINT OF VIEW Have you engaged with your content and developed a point of view? Have you articulated your positioning on the intersection form, content, and context?

• REFLECTION How are you analyzing and synthesizing assignments, feedback, and the readings as your progress through the course? How have you developed as a designer over time?

Grading breakdown by component:

Phase 0: Proposal:	10%
Phase 1: Research	10%
Phase 2: Concept development	25%
Phase 3: Final Deliverables	35%
Attendance, Preparedness, Participation, Motivation	10%
Documentation	10%
	100%

Attendance, Preparedness, Participation and Motivation refers to:
• Having requested work completed on-time, as assigned
• Being prepared to participate in class activities, including having required materials on hand, and being pinned-up on time for critiques (formal and informal)
• Active engagement and interest in class work, workshops, tutorials and lectures
• Respect of and for the needs of one's peers
• Respectful of community members, community spaces and guests:

Grading Scheme:

A = 93-100%
B+ = 87-93%
B = 80-87%
C+ = 75-80%
C = 70-75%
D = 60-70%
F = below 60%

Course Calendar

We will be taking some field trips this semester (dates TBD) but I will update once dates are set.

1	Jan 23	Intros + Ice breaker Syllabus Review Research presentation Topic Brainstorm
2	Jan 27 January 30	Topic discussion In-class research TOPIC presentation due
3	Feb 3 Feb 6	Research Plans due Research check-ins
4	Feb 10 Feb 13	Research check-ins Research all class check-in/ mini presentation
5	Feb 17 + Feb 20	WIP
6	Feb 24 Feb 27	Research presentations Topic Cards/ Team brainstorming
7	March 3 March 6	Ideation check-ins Ideation and concept development

8	March 10 March 13	Ideation and concept development 3-5 workable concepts. Minimum deliverables: see assignment sheet
9		**SPRING BREAK!** I am not assigning any specific work to be completed over Spring Break. If you are at all behind, please catch up. Make sure all your work thus far is documented and uploaded.
10	March 24 March 27	Post-break check-in. Single concept refinement Due: Design your book template. See assignment sheet.
11	March 31 April 3	Check-in Design your evaluation criteria
12	April 7 April 11	Check-in All class check-in/ mini presentation
13	April 14 April 17	Book intros and bibliography due Check-in
14	April 21+ April 24	WIP
15	April 28 May 1	WIP Presentation practice. Full class runthrough.
16	May 5 May 6 (Tues is Thurs)	Final working class Final Presentation date TBD (waiting on department).
17	May 12 May 15	Final Books due.

Please contact me if there are any questions or scheduling conflicts as soon as possible.