Teaching Portfolio

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Content

Teaching Philosophy

Learning to me, means constantly pursuing knowledge. The more knowledge you learn, the more you feel the necessity of learning. I have a background in industrial design, which requires a lot of cross-disciplinary knowledges that nobody could claim themselves as an expert in all fields. Despite from design skills, the understanding of aesthetics, craftmanship, material science, personal experiences, etc. are all essential for designers, and often times, these knowledges come from research, critical thinking, and discussions between peers. Hence, my objectives as a teacher are to create an inclusive and safe environment for my students to develop deep critical thinking habit and engage students through shared experiences, that would not only benefit my students, but also me as well.

When I first got into the industrial design department, I had several training classes, such as sketching pages of cubes and modelling techniques, to prepare myself to be ready for more challenging studio classes at higher level. It is a painful process, but it is so important that I realized later that I would not be able to continue my study without that period of time. However, would it be possible to make this process self-motivated? Then enlarge it into general art education, that encourage self-motivated learning process, where instructors are supporters with knowledges and experiences.

In my classes, I would like to encourage students to realize themselves to obtain knowledges and skills, while working with projects. Thus, it forms a self-motivated learning process. Instead of providing demonstrations and lectures beforehand, I would like to ask students to explore with the topic themselves, with leading questions contributed by instructor, then motivated by either necessity or curiosity, ask for instructions, information, or demonstrations, from the basics to advances, when they ran into problems, so that they would be able to understand the importance of the exercises and information. This does not mean that there will not be a structure of class, but only by thinking and learning becoming independent, does the learning process become more efficient.

Experiments and explorations will be another focus in my classes. Experimenting and exploration is a technical process for students to understand the material and subject they are working with, which is also a vital component of design process. It is also an enjoyable yet challenging? process that encourages a lot of engagements between students, and the department and campus facilities and resources. The class could be informative while being playful. I value students sharing their experiment's process and results with peers, which often involves a lot of useful knowledges that would not be able to understand without a hands-on experience. Some of my best experiences came from material exploration classes with cork, when I was able to fully explore and experiment with the material with all school facilities before making a final design project. Only by fully understanding the subject, one can then develop a successful design project.

I would also like to include interdisciplinary opportunities in my classes. Cultivating interdisciplinarity and collaboration in students often pushes them to find new topics and possibilities that they might never thought about that before. For example, by encouraging group works, class wide discussions etc. gives the opportunities to students with different backgrounds to share their experiences in classes, which would often lead to unexpected ideas and experiences. Cross-disciplinary knowledges are also important for designers as we work so much with projects from different backgrounds that involves different clients and audiences. Thus, interdisciplinary experience in classes would better prepare students their knowledge base before entering real work.

Inclusivity Statement

Design is a subject that involves a lot of different groups of people, not only the users but also the clients. I have long been dedicated to diversity and to the dispersion of knowledge unbound by social, cultural, political, gender, biological and economic strata. Growing up in a family with parents from two very different cultures and raised in a third culture that belongs to neither of my parents, I have continued to benefit from a diverse, cultured and open learning environment that not everyone would have a chance to be in. I also became extremely aware of cultural differences and problems or misunderstanding that might be caused be that. I believe that we must respect other's culture and ideas before asking for respect from others.

Our society had never been more accepting and open-minded than now. We should no longer tolerate exclusion, manipulation or intimidation based on any religious, cultural, ethnic, societal, gender or economic backgrounds. Everyone is different as individuals and we must appreciate the difference between us, as this is what forms us each as a unique, independent person, that would collaborate with one another to encourage creativities. We must embrace them, use them, redefine them and collaborate with camaraderie.

Hence, in my class, I would expect my students to acknowledge that every student has different background, which means that everyone will hold a different viewpoint that will lead to different results, thoughts, speaking etc. Respecting in this case, is on both directions. This means that while either working alone, or in groups, for instance, in case someone else feel offended due to your actions, which is very likely to happen in a class with various backgrounds, it is important that your respect their feelings and react properly to that. In reverse, if you feel being offended, it is also important that you give other people a chance to understand the situation, your reasons, and then to correct themselves. Since it would be the same for others as for you, that this might not be something you experienced or cared in your personal viewpoint, but are vital for others.

Proposed Courses

Fiction vs. Function

Capacity: 15
Estimated cost: $100
3 Credits
Instructor: Elaine Li
Level: Undergraduate Non-major elective, Open to all majors.

Throughout the history, the genre of fiction as a source of imagination has always been a source of inspiration for designers and scientists to generate new ideas and concepts. Drawing from fictions and the foresight, community, designers and scientists had been exploring how world and scenario-building can be used to enrich our life. In this class, student will explore the possibilities of converging the imagination world of fiction to reality with application of either full or limited functionality.

Students will be challenged to develop foresight thinking and the ability to access our rich and deep imagination to be able to find, form and translate findings from fictions to a functional real application in the world. This approach could be created the next generation of technology or could simply be a toy that brings joy. Working back and forth between words and objects, students will be able to understand the relationship between the functions and words in terms of how to present and illustrate the function to the audiences. The class will start with an assigned fiction as an exercise. Then, move on to individual research for a more meaningful fiction (books, novels, poems, etc.) that they are interested in. For the final project, will be a series of fictional descriptions surrounding the translated object from the class.

Matter Matters

Capacity: 12
Estimated cost: $100-200
3 Credits
Instructor: Elaine Li
Level: Undergraduate Non-major elective, Open to all majors.
Not required for prior experiences with machines, but suggested

What is the material? How does your material behave? What do they want to do and what do they not want to do? These are common questions being asked to artists and designers during the making process of their ideas and concepts. With any project, understanding material and its capabilities is key to innovation and success. This experimental studio is going to focus on material-based investigations with materials that will be the source material for the final projects. Students will be challenged to investigate a material they are interested in from either research or experiences prior to class, from the origin to current applications of the material. Next hands-on experiments of the material in person will support a fuller understanding of the possibilities and restrictions of the techniques, material facts and perhaps combinations with a second or third material. The course will result in a series of insights into the peculiar limitations and opportunities of the chosen material as well as ion? proposals for applications and products in various sectors.

Concept Development: Prototyping with Form

Capacity: 12
Estimated cost: $100-200
3 Credits
Instructor: Elaine Li
Level: Undergraduate Major elective, permission of instructor required for non-major students.
Prerequisites: Wood II or Metal II or Shop Orientation, access to shop machines.

The form of a product is the organization of relationships between the materials, expression, and function, toward the public. It is the experiential whole of the product, unified and stable but open to interpretation and change. This class will challenge students to generate intentional, communicative and emotive three-dimensional forms, while learning methods for using sketches and models to imagine, test, present and validate a design. Whether it be a series of quick sketch models to explore forms, a beautiful appearance model to communicate the details of design, or a works-like model to evaluate functionality, a tangible physical object is unmatched in its ability to communicate. Inspiration and a little more specificity then follow. Gaining proficiency in prototyping form will not only improve communication and presentation ability, but expand designer's abilities to imagine, understand and develop three dimensional forms. Students will explore modeling as a method of learning and understanding forms, and evaluation and communication of ideas. Various modeling methods, design processes, professional practices and presentations will be used as methods for students to learn, understand, and eventually develop their own concept. This class will start with a few techniques driven exercises, then a final project reflects the process and exercises through the class.

Proposed Syllabus

Matter Matters

Capacity: 12
Estimated cost: $100
3 Credits
Instructor: Elaine Li
Level: Undergraduate Non-major elective, Open to all majors.
Suggested with prior wood II, or metal II

Course Description:

What is the material? How does your material behave? What do they want to do and what do they not want to do? These are common questions being asked to artists and designers during the making process of their ideas and concepts. With any project, understanding material and its capabilities is key to innovation and success. This experimental studio is going to focus on material-based investigations with materials that will be the source material for the final projects. Students will be challenged to investigate a material they are interested in from either research or experiences prior to class, from the origin to current applications of the material. Next hands-on experiments of the material in person will support a fuller understanding of the possibilities and restrictions of the techniques, material facts and perhaps combinations with a second or third material. The course will result in a series of insights into the peculiar limitations and opportunities of the chosen material as well as ion? proposals for applications and products in various sectors.

Course Goals:

1. To question and expand the definitions and abilities of materials
2. To develop critical understanding of material understanding
3. To understand the relationship between material, behavior, and concept development
4. To actively expand and apply critical thinking skills
5. To learn & practice critical design / design fiction
6. To encourage experiment-driven design process

Course Learning Outcomes:

1. Ability to work and experiment with the subject from various approach. (10%)
2. Greater understanding of material properties through experimental process and reflections. (10%)
3. Ability to explore the potential design opportunities through investigation and reflection. (25%)
4. A series of insights into the peculiar limitations and opportunities with professional knowledge of the chosen material. (25%)
5. A final proposal and prototype for applications and products with respect of the learning from the process. (30%)

Assignments:

1. Weekly reports

a) A quick presentation of the process, find outs, reflections, etc. from the previous week's work at the beginning of each class.

2. Research report

a) Background research of the designated material including historical and scientific facts, existing products/applications, possible directions for experiments, etc.

3. Mid-term insights

a) Based on the process and result of experiments, present to the class your findings including pros and cons, opportunities, proposal, etc. of the material. Share with the class your reflection of experimenting process and methods also. Define one particular pathway that is most exciting and focus on it for the rest of semester.

4. Final prototype

a) Based on the deep investigation of the material, develop an application of the material. Present to the class with a series of prototypes that reflects your process, thinking and reflections.

Grading policy and Evaluation:

In-class participation	5%
Weekly reports	15%
Research report	10%
Mid-term insight	30%
Final prototype	40%

Course Organization and Method of Instruction:

This course will be divided into two parts, free experiments (mid-term), and focused experiments. The first segment will prepare students with basic knowledges of the material, and methods of experimenting. The second portion will help student to develop the ability of deep investigation of a subject and build up the understanding the relationship between the material behavior and the application.

Nobody will be expert in all materials. Therefore, the active participation of students will be essential for the class. Each class will begin with a brief presentation from students of their takeaways from the previous week. Critiques and reflections will be focused on the methods and process of experiments. The rest of the class will be lectures, in class work times and review days. Instructions of research method and basic material experiment process will be provided to help students to start their journey. Students will then be responsible of gaining further knowledge of their own materials. Different types of reviews will be applied throughout the course such as individual reviews, group reviews, written reflections, and post-it notes to encourage different levels of reflections and engagements with one another's projects.

Course Policies and Expectations:

Students are expected to pay attention in class, attend every class on time, be attentive, participate in class discussions and critiques, and be working during in class work time. Outside class time studio work and research is also expected.

Assignments will be presented in class and expected to be completed prior to the beginning of class of the due date.

Attendance to every class is mandatory and crucial to your performance. The information needed to complete each assignment will be covered in lass and during presentations and discussions. All students are expected to arrive to class on time and remain present for the duration of the class. After missing two classes, your grade will be reduced, and your professor has the means to terminate you from the course. More than two late arrivals will count as one absence. Some absences will be excused based on situation. Attendance to all critiques is mandatory, missing any critique or review will have a detrimental effect on your final grade.

Course Requirements:

There are no prerequisites for the course, students of all levels and disciplines welcomed. However, Wood II or Metal II or prior experiences is strongly suggested due to common material choices.
Please keep in mind that this course will possibly include a large amount of machinery works. Students are required to adhere to all rules of their studio and shop spaces, safety is the number one priority. In case of emergency call RISD Public Safety

Health and Safety:

The Office of Student Affairs (located on the third floor of Carr House) serves as a general advocate for students need. studaff@risd.edu or 401-454-6600 Brittany Goodwin in Disability Services & Academic Support: bgoodwin@risd.edu or 401-709-8460 The Office of Social Equity and Inclusion, the Office of International Student Services both support for diversity and inclusion, see https://sei.eird.edu, https://www.oiss.risd.edu Contact RISD's Title IX office if find gender-based discrimination, harassment, or violence: http://titleix.risd.edu/

Academic Code of Conduct:

RISD is an inclusive environment, focused on the teaching of design and community, in order to learn we must create an open and accepting workspace. People of all walks of life are allowed in our classrooms as it is the only way to grow. Architecture is a worldly profession, focused on diversity, culture, ethics and inclusivity. Exclusion, manipulation or intimidation based on any religious, cultural, ethnic, societal, gender or economic backgrounds will not be tolerated. We as a community here at RISD must act to maintain a positive and inclusive working and learning environment. In the end we are all human.

Weekly Report:

Week		Details	
Week 1	*Lecture*	Introduction, syllabus review	*Emerging Learning Outcomes*
		Research methods	
	Filed trip	Material collection, Fleet Library	
	Assignment	Reading	
		Research on potential material choices based on your interest, accessibility, abilities, and shop policies.	
		Gather your material and bring in next class.	
		Find three examples of material-driven design.	
Week 2	*Weekly report*	What is your material and why, examples	
	Lecture	Common material experiment methods and process	
	Work time	Background information research	
	Assignment	Reading	
		Research report	
		Start experiments	
Week 3	*Weekly report*	Research report review, plan for experiments	
	Work time	Desk crit: work done during past week, plan for the next steps.	
	Assignment	Reading	
		Collect three examples of new materials used in design.	
Week 4	*Weekly report*	Reflection of last week, examples	*Developing Learning Outcomes*
	Work time		
	Review	Group review: suggestions and advice for further investigations.	
	Assignment	Reading	
Week 5	*Weekly report*	Reflection of last week.	
	Review	Individual review: current achievements, prepare for mid term	
	Work time		
	Assignment	Start preparing for presentation.	
Week 6	*Weekly report*	Reflection of last week	
	Work time	Desk crit: work done during past weeks, presentation outline	
	Assignment	Mid-term insight collection	
Week 7	*Review*	Group review: Mid-term insight presentation	
	Lecture	Introduction to Final Project	
		Material driven design process	
	Assignment	Identify one pathway that you want to focus on based on your interest, potential, opportunities etc.	
Week 8	*Weekly report*	Focused direction, and next step	
	Lecture	Task organization method	
	Work time	Desk crit: plan for further investigation	
	Assignment	Thorough case study of one of examples from before	
		Start forming a concept based on the learnings	

Week 9	*Weekly report*	Reflection of last week, case study
	Work time	
	Review	Group review: Concept / application sharing
	Assignment	Make a plan for final presentation Start prototyping
Week 10	*Weekly report*	Reflection of last week, share your plan
	Work time	
	Review	Individual review: first prototype, next step
Week 11	*Weekly report*	Reflection of last week
	Work time	
	Review	Written review: part with a peer, comment on the process, possibilities and suggestions
	Assignment	Final presentation, written reflection: your interest, concept, reflection of the process
Week 12	*Review*	Final presentation

Advanced Learning Outcomes

Proposed Class Project

Final Project

Assignment Description:

The goal of the final project is to develop an idea in relation to a practical application of your material that reflects and reviews your deep investigation throughout this semester. The application could be an experience, service, product, artifact etc. that is a culmination of what you have learnt in the semester so far.

A second or third materials are very welcome to be used, but your chosen material should be dominating or play an essential part. Ask yourself, why am I using this material for this purpose, what can this application do to your life? Please base the selection on your takeaways from the experiments you have done so far to develop your idea. Your application should be unique to your material. Think about the material behavior; what is the boundary of the material, what are the unique factors of the material, what are some features that nothing else but only your material could achieve.
Please be prepared to share your prototypes and developing process with the class.

Project Goals:

-To synthesize what you've learned and worked on the past few weeks.
-To learn and practice the professional design process within the limitations of resources and abilities.
-To gain a greater understanding of the relationship between material, behavior, and concept development.
-To think critically of material choice for projects.

Learning Outcomes:

-The ability to accomplish a design challenge.
-Greater understanding of the relationship between material properties and design concept.
-The ability to draw insights from a series of experiments.
-The practice of critical reflection during design process.

Deliverables:

-samples that relate or inspire your final concept.
-at least three prototypes from the process of development.
-practical / workable prototype that you wish to present to the class (be ready for the class playing around with your object.)
-written reflection of your idea and process.

Assessment:

Basic Competency:

All elements are completed on time. The design / application is developed based on the insights from first half of semester. The presentation suggested a clear reason for the usage of the material. Some level of reflection is included.

Advanced Competency:

All elements are completed on time. The design / application is developed based on the insights from first half of semester with a series of samples that present the process. The presentation is logically clear and detailed, with a clear reason for the usage of the material and future steps if possible. A thorough reflection of the experimenting process, design process, and prototyping process is included in the presentation and written paragraph.

Grading Rubric

	0	1	2	3
Class participation	Frequently late to class or missing classes. Never, or rarely participate in critiques and weekly report.	Sometimes late to class. Often leave the studio during class time without acceptable reasons. Occasionally participate in critiques, weekly report and in-class discussions.	Attend all classes on time. Evidence shown using in-class worktime. Often participate in critiques, weekly report and in-class discussions with some level of insightful opinions.	Attend all classes on time. Making good use of in-class worktime. Actively participate in critiques and weekly reports with constructive criticisms. Participate in in-class discussions with insightful opinions, source, and knowledges.
Concept development and critical thinking	The concept is absent or lack of coherence. Lack of evidence showing reflections build into the process. Work is occasionally unique or risk-taking.	Some evidence of concept development and reflections build into the process. Ideas illustrates some originality.	The process / insights are integrated into concept development. Ideas are unique and illustrates personal investigation of the following development.	Concept are constantly pushed with strategic questions developed through material experiments. Ideas illustrates personal investigation of the concept and has potential to push forward.
Craftsmanship and technique	Unable to comprehend basic technical skills. Poor development of usage of tools, machines, and materials. Prototypes are unfinished, unfunctional, or falling apart.	Obtained basic technical skills related to the material. Able to utilize tools or machines to work with materials. Prototypes are finished, but not yet fully functional or demonstrating the concept.	Demonstrated above average understanding of technical skills and tools. Able to reasonably utilize tools or third materials for the process. Prototypes are well done, functional and demonstrating the concept behind.	Demonstrate a superior understanding of the technical skills and tools. Able to fully utilize tools or third materials for the process according to needs and ideas. Smoothly, fully functional prototypes are finished exceeding expectation and are self-explanatory.

Understanding achievement and completion	Deliverables of assignments are missing or unfinished. Fail to demonstrate the understandings of relationship between material and application.	Deliverables of assignments are mostly completed. Student's work is attempting to demonstrate the understandings of relationship between material and application.	All assignments and deliverables are completed. A clear understanding of the relationship between material and application is intergraded into the completion of assignments.	Demonstrates outstanding execution of ones' concepts and ideas developed from the understanding of materials and application. The choice of material and working process are reasonable and self-explaining by the completed work.
Presentation	Students are unable to clearly deliver the project concepts and process. The presentation is lack of logic, reflection, and documentation.	The project concepts and process are generally delivered to the audiences. the presentation is organized logically and included some documentation of the process and reflection. In case of confusion, student is able to answer questions to support the presentation.	The project concepts and process are clearly delivered to the audiences. The presentation is organized logically with a series of well-prepared supporting information including documentation of the process, and reflection of the project.	The project concepts and process are clearly delivered to the audience and is able to involve elements that attracts attention. The presentation is organized logically that is easy to follow and understand with a series of supporting materials such as documentation and reflections. Student prepared other supporting information that might be related or raised by questions.

Mid-term Feedback Form

Please evaluate the following statements on a scale from 1 to 5: (1=strongly disagree, 5=strongly agree)

1. The principles and concepts of the class are clearly explained.
2. The class readings, lectures and demons are greatly helping me with making progress.
3. The in-class discussions and critiques are helpful for further developing my project.
4. The class time was used productively.
5. The instructor is providing enough supports such as outside resources, usage of tools etc.
6. The instructor is providing helpful feedback.
7. The class is requiring a reasonable amount of time and cost.
8. This class is constantly challenging my ability.
9. I am receiving reasonable comments and evaluations.
10. I feel I had worked really hard for this class.

At this moment, I would expect my grade to be:

Is there anything new you learnt during this class? Please explain why or why not.

To what extend do you feel like this class is challenging your ability and ways of thinking?

How might you intergrade the lessons learnt from this class to your own discipline or working routine?

What would you like the instructor to continue doing or not? Please explain.

Additional comments.