



Intro to SDM 2: How To Make Anything (PC2)

APDM 1803 CRN 14950

Instructor: Martin De Bie
debiem@newschool.edu

Instructor: Pascal Nuzzo
nuzzop@newschool.edu

Program Director: Anna Krutiy
krutiya@newschool.edu

SPRING 2025

January 20th to May 16th, 2025
Fridays from 12h30 to 15h10 CET
Room: 300
Parsons Paris - The New School
45, rue Saint-Roch, Paris

Course Description

This course teaches students to envision, design and prototype projects using diverse materials, machines, and digital fabrication tools. It is a multi-disciplinary and hands-on learning experience that empowers students to translate ideas into tangible prototypes, do-it-yourself, and engage with the maker community in Paris and worldwide. Across 15 sessions, students will learn to sketch product ideas, prototype with cardboard, wood, and paper, as well as computer-aided design, 3D printing, building models, and making objects smart with electronics and pre-programmed components. By the end of the course, students will be able to conceptualize, make, document, and share physical prototypes of all kinds in sustainable ways.

Class description

During this class, students will create small projects as a starting point to learn news skills. The course starts with a historical introduction of the *Maker Movement* and its different resources, followed by an introduction to the basics of product sketching. After this first apprenticeship, the students will have to imagine a product and create its logo, packaging and the corresponding showroom. Thanks to this, they will discover the use of machines such as plotter, laser cutting and 3D printing with a direct application. After the mid-term review, students will explore basic electronic kits to simulate interactive interfaces and connected objects and focus on a personal project that will use the different techniques learned throughout the semester.

Note: The attendance to the 3 sessions of the workshop on Adobe Tools is mandatory to be eligible for participation credits for Intro to SDM 2.

Schedule

Saturday, February 15, 2025 (Photoshop)

- Group PC1: 10am-1pm (10h—13h = 3h)
- Group PC2: 2pm-5pm (14h—17h = 3h)

Saturday, February 22, 2025 (Illustrator)

- Group PC1: 10am-1pm (10h—13h = 3h)
- Group PC2: 2pm-5pm (14h—17h = 3h)

Saturday, March 1, 2025 (Figma)

- Group PC1: 10am-1pm (10h—13h = 3h)
- Group PC2: 2pm-5pm (14h—17h = 3h)

Location:

St Roch campus, room 500

Learning Outcomes

After completing the requirements for this course, students will be able to, at an introductory level:

- Demonstrate competence in rapid prototyping of physical products with various materials, tools, and techniques.
- Visualize product ideas through sketching, digital design, and mockup modeling.
- Source sustainable materials for second life use, reduce fabrication waste, and participate actively in the circular economy.
- Operate equipment and supplies in maker spaces, fabrication labs, and other technical workshop facilities.
- Collaborate with multidisciplinary creatives, including product designers, makers, DIYers, technicians, entrepreneurs, marketers, strategists, and futurists.
- Document, share, and collect feedback for prototypes across stages of the creative process, from rough idea sketch to functional demo.

Course Outline

Date	Topic and activity	Due on the day of the class
<p>Week 1</p> <p>Jan 20*</p> <p>Monday 15h25-18h 10</p> <p>MDB</p>	<p>Introduction</p> <p>Course Overview Evaluation criteria</p> <ul style="list-style-type: none"> • About this class: purpose, schedule, workflow, resources. • Getting to know the Parsons Paris Maker Lab. • Introduction to DIY, the maker movement and design making process. 	
<p>Week 2</p> <p>Jan 31</p> <p>MDB</p>	<p>Packaging (Part 1 of 3)</p> <ul style="list-style-type: none"> • Exploring online resources. • Create a moodboard about the universe of your product • Pick up a product 	<p><u>Explore</u></p> <ul style="list-style-type: none"> • Free packaging template • Free logo generator
<p>Week 3</p> <p>Feb 7</p> <p>MDB</p>	<p>Packaging (Part 2 of 3)</p> <ul style="list-style-type: none"> • Focus on the graphical identity • Start first research and experimentation 	<p><u>Explore</u></p> <ul style="list-style-type: none"> • Free packaging template • Free logo generator
<p>Week 4</p> <p>Feb 14</p> <p>PN</p>	<p>Sketching for product design (Part 1 of 3)</p> <ul style="list-style-type: none"> • Fluency in sketching. • Lines, perspectives and volumes. • How to be spontaneous and efficient in product sketching. • How to build and keep a sketchbook. 	

<p>Week 5</p> <p>Feb 21</p> <p>PN</p>	<p>Sketching for product design (Part 2 of 3)</p> <ul style="list-style-type: none"> • How to sketch hard and soft products. • Working with light and shadows, colors and textures. • Additional resources for future reference. 	
<p>Week 6</p> <p>Feb 28</p> <p>PN</p>	<p>Sketching for product design (Part 3 of 3)</p> <ul style="list-style-type: none"> • Hands-on practice 	
<p>Week 7</p> <p>Mar 14</p> <p>MDB</p>	<p>Packaging (Part 3 of 3)</p> <ul style="list-style-type: none"> • Create an entire process to generate packaging (shape, pattern, logo...) • Produce it using machine from the tech lab • Document your project 	<p><u>Explore</u></p> <ul style="list-style-type: none"> • Free packaging template • Free logo generator
<p>Week 8</p> <p>Mar 21</p> <p>MDB</p>	<p>- Mid term Review -</p> <p>Object from 2D to 3D (Part 1 of 3)</p> <ul style="list-style-type: none"> • Explore online resources. • Introduction to the laser cutting machine • Find ideas of a project / object to make 	<p><u>Explore</u></p> <ul style="list-style-type: none"> • https://www.instructables.com/
<p>Week 9</p> <p>Mar 28</p> <p>MDB</p>	<p>Object from 2D to 3D (Part 2 of 3)</p> <ul style="list-style-type: none"> • Sketching • First experimentation 	<p><u>Explore</u></p> <ul style="list-style-type: none"> • https://www.instructables.com/
<p>Week 10</p> <p>Apr 4</p> <p>MDB</p>	<p>Object from 2D to 3D (Part 3 of 3)</p> <ul style="list-style-type: none"> • Create a model to make it with the machine from the tech lab • Production and documentation 	<p><u>Explore</u></p> <ul style="list-style-type: none"> • https://www.instructables.com/

<p>Week 11</p> <p>Apr 11</p> <p>MDB</p>	<p>Electronics and programming (Makey Makey / Little Bits)</p> <ul style="list-style-type: none"> • What are Little Bits and makey makey ? • How do they work? • Experiment with it. 	<p><u>Explore</u></p> <ul style="list-style-type: none"> • https://makeymakey.com/ • Ted Talk Little bits
<p>Week 12</p> <p>Apr 25</p> <p>MDB</p>	<p>Personal project (Part 1 of 3)</p> <ul style="list-style-type: none"> • Hands-on session to design and produce a personal project. • Use different resources learned in class and machine from the tech lab to develop a personal project. 	
<p>Week 13</p> <p>May 9</p> <p>MDB</p>	<p>Personal project (Part 2 of 3)</p> <ul style="list-style-type: none"> • Hands-on session to design and produce a personal project. • Use different resources learned in class and machine from the tech lab to develop a personal project. 	
<p>Week 14</p> <p>May 10*</p> <p>Make up session (Saturday)</p> <p>MDB</p>	<p>Personal project (Part 3 of 3)</p> <ul style="list-style-type: none"> • Hands-on session to design and produce a personal project. • Use different resources learned in class and machine from the tech lab to develop a personal project. 	
<p>Week 15</p> <p>May 16</p> <p>MDB</p>	<p>Final presentations</p> <ul style="list-style-type: none"> • Project presentations and critique. • Course reflection, learnings, and takeaways. • What's next? Moving forward as a maker and DIYer. • Semester closure. 	<p>You will present the different exercises made during the class with their documentation and your documented personal project.</p>

Note: Course sequences are subject to change, depending on class development, projects, and guest speakers. Please check your email and canvas every week for eventual program changes.

Selective Videos

- [Rise Of The Makers: Return Of The Maker Movement | A League Of Extraordinary Makers](#)

Selective Bibliography

- *Makers: The New Industrial Revolution*. Anderson, C., 2012
- *Free to Make: How the Maker Movement is Changing Our Schools, Our Jobs, and Our Minds*. Dougherty, D., 2016.
- *Make: Paper Inventions: Machines that Move, Drawings that Light Up, and Wearables and Structures You Can Cut, Fold, and Roll*. Ceceri, K., 2015.
- *Prototyping for Designers: Developing the Best Digital and Physical Products*. McElroy, K., 2017.
- *Sketching: Drawing Techniques for Product Designers*. Eissen, K., Steur, R., 2008.
- *The Art of Tinkering: Meet 150+ Makers Working at the Intersection of Art, Science & Technology*. Wilkinson, K., 2014.
- *The Big Book of Makerspace Projects: Inspiring Makers to Experiment, Create, and Learn*. Graves, C. and Graves, A., 2016.
- *The Hardware Hacker: Adventures in Making and Breaking Hardware*. Huang, A., 2017.
- *The Maker Movement Manifesto: Rules for Innovation in the New World of Crafters, Hackers, and Tinkerers*. Hatch, M., 2013.
- *Zero to Maker: A Beginner's Guide to the Skills, Tools, and Ideas of the Maker Movement*. Lang, D., 2017.

Materials and Supplies

You will need a sketchbook, your computer and a phone camera. You will be provided with all necessary materials for each session like pens of different thicknesses, markers, a pencil, a ruler, post-it notes, as well as the materials for each machine. As indicated on the schedule, during some classes will require more specific prototyping supplies, in particular those related to your projects. This will be reminded to you the class before but please pay attention to it.

Grading and Evaluation

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

- Ability to operate equipment and work with materials in a maker or fabrication lab.
- Inventiveness and quality execution prototyping projects, evidencing ability to translate ideas into visual concepts and physical products.
- Competence in sourcing, reusing, and upcycling materials for making projects.
- Attendance in class, timely completion of each step of the project, as well as ability to incorporate feedback and participate actively in group assignments.
- Ability to document and communicate the final outcomes of a design through visual and oral presentations.

Final Grade Calculation

- 10 % Class participation, attendance, and collaboration.
- 10% Participation in Adobe workshops
- 25% Mid-term review.
- 25% Exercises in the second part of the semester.
- 30% Final project.

100% TOTAL

Absence Policy

Final letter grades for classes at Parsons Paris will be reduced based on accumulated absences according to the following breakdown:

UNEXCUSED ABSENCES:

Amount of Unexcused Absences	Grade Markdown	Example
1 absence	No markdown	N/A
2 absences	One point markdown	Eg. A to A-
3 absences	One full grade deduction	Eg. A- to B-
4 absences	May fail the course	Students must speak with their advisor to discuss options

COURSE SCHEDULE TYPES:

Courses meeting 2h40m per sessions for 15 sessions

- 1 absence = 1 session
- 2 absences = 2 sessions
- 3 absences = 3 sessions
- 3 sessions represents 20% of class time.

EXCUSED ABSENCES:

EXCUSED ABSENCES

Absences may be marked excused in the following scenarios:

- Doctor's notes: Students have the option to submit a doctors' note in order to be excused from class. Note that notes must be in English or French and issued by a doctor located in France. If a student is followed by a doctor in their home country, student success needs to be informed in advance.
- Official visa appointments scheduled with the French office of immigration in coordination with Student Success.
- Death or accident in the family - student should present a note from a parent or guardian, information may be provided by student success
- Religious Observance - The student must inform the instructor at the beginning of the course of any anticipated absences due to religious observance.
- Students working on special projects - Students must inform their faculty, program director,

and Director or Career Development and Internships and Alumni Engagement if the project involves an internship. **Note that outside of special projects, internships may not happen during class time.**

Once a student reaches the equivalent of 3 excused/unexcused absences for any class they must speak with their academic advisor to discuss continuing the class. It is important to note that absences even when excused may negatively impact a student's learning and result in a failing grade.

UNDERGRADUATE GRADING STANDARDS			
Letter Grade	Percentage	GPA	Grade Description
A	96-100%	4	Work of exceptional quality, which often goes beyond the stated goals of the course
A-	91-95%	3.7	Work of very high quality
B+	86-90%	3.3	Work of high quality that indicates substantially higher than average abilities
B	81-85%	3	Very good work that satisfies the goals of the course
B-	76-80%	2.7	Good work
C+	71-75%	2.3	Above-average work
C	66-70%	2	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-	61-65%	1.7	Passing work but below good academic standing
D	46-60%	1	Below-average work that indicates a student does not fully understand the assignments; Probation level though passing for credit
F	0-45%	0	Failure, no credit

Grade of W

The grade of W will be assigned by the Registrar's Office 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's transcript.

Grades of Incomplete

A grade of I will be assigned only if a student has filed a request for an incomplete with the instructor and the instructor approves the grade. Unless the instructor submits a regular letter grade within the period of time required by the student's academic program, a grade of I or GM will automatically convert to F or N, as described below.

For undergraduate students, grades of I and GM convert to F at the end of the seventh week of the spring semester for fall courses and at the end of the seventh week of the following fall semester for spring and summer courses.

For graduate students, grades of I and GM for graduate students convert to N one year after the end date of the course.

For further information, please refer to the following link:

<https://www.newschool.edu/registrar/academic-policies/>

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**

Parsons Paris Attendance Policy

Parsons Paris attendance guidelines encourage students' success in all aspects of their academic programs. To ensure the quality of a student's educational experience, Parsons Paris considers that full participation in class is essential to the successful completion of coursework and mastery of learning outcomes included in course assessment.

Students are expected to attend all scheduled classes and arrive promptly in compliance with the standards clearly stated in course syllabi and distributed on the first day of class and then available on each course website.

Absence from a significant portion of class time will prevent the successful attainment of course objectives and will therefore impact a student's final grade. A significant portion of class time is generally defined as 20% of class time. Tardiness, especially chronic tardiness, or early departure from class, will constitute absences at the discretion of the faculty.

Whether the course is a lecture, seminar or studio, faculty will assess each student's performance against all of the assessment criteria in determining the student's final grade. However, beyond 20% absence/tardiness, students and/or the instructor will be asked to consult with their program director and the Dean of Students to discuss withdrawal from the course.

At Parsons Paris, attendance and lateness are assessed as of the first day of classes. Students who register after a class has begun are responsible for any missed assignments and coursework. Students who must miss a class session should notify the instructor and arrange to make up any missed work as soon as possible. A student who anticipates an extended absence should immediately inform the faculty and the Dean of Students.

Finally, faculty are asked to notify Student Success of any student who misses two consecutive classes. Following two absences, students may be asked to speak with Student Success to review any impediments to their successful performance in class and, if so, to provide confirmation to the faculty member that such a conversation took place.

Attendance issues for all students will be addressed by Parsons Paris and in particular by the Dean of Students. Faculty who have concerns about students' absences should notify both their program directors and the Dean of Students. While in residence at Parsons Paris, mobility students must bring attendance issues to the Dean of Students. Parsons NY advising staff will not address issues of attendance that occur at Parsons Paris. Similarly, decisions regarding the attainment of learning outcomes in case of excessive absences will be determined by Parsons Paris.

Religious Absences and Equivalent Opportunity

Pursuant to Section 224-a of the New York State Education Laws, any student who is absent from school because of his or her religious beliefs will be given an equivalent opportunity to register for classes or make up any examination, study, or work requirements which he or she may have missed because of such absence on any particular day or days. The student must inform the instructor at the beginning of the course of any anticipated absences due to religious observance.

- **Canvas**

Use of the Canvas online learning management system 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.

- **Academic Integrity**

The New School views academic integrity as the duty of every community member. Claiming authorship for one's own work and only for that work, recognizing the contributions of others accurately and completely, and presenting one's academic circumstances and achievements accurately and completely are fundamental obligations to the integrity of intellectual, creative, and academic pursuits. All members of the university community are expected to conduct themselves in accord with the standards of academic integrity outlined in this policy.

The New School values and respects all academic traditions; however, while at The New School, students are expected to adhere to the norms and standards of academic integrity espoused by this community and will be assessed in accordance with these standards.

Students are responsible for understanding the University's policy on academic integrity. The New School recognizes that different academic circumstances may require different procedures for citing sources and referencing the work of others, including work generated by artificial intelligence tools. In their syllabi, faculty members are required to inform students of the academic integrity policy, as well as provide guidelines on their own practices, such as the limits within which students may collaborate with or seek help from others, the parameters on the acceptable outsourcing of certain tasks, and direction on the use of generative artificial intelligence tools, if permitted for use within the course.

DEFINITIONS AND EXAMPLES OF ACADEMIC DISHONESTY

The standards of academic integrity apply to all forms of academic work and circumstances, including, but not limited to, presentations, performances, examinations, submissions of papers (including drafts), projects, academic records, etc. Academic integrity includes accurate use of quotations, as well as appropriate and explicit citation of sources in instances of paraphrasing, describing ideas, and reporting on research findings and work of others (including that of faculty members and other students). Only authorized use of artificial intelligence tools is permitted. Students unsure about acceptable use of any source, including generative artificial intelligence, in the context of a particular assignment, should consult the syllabus for a course or speak with the instructor.

Academic dishonesty results from violations of academic integrity guidelines. Academic dishonesty includes, but is not limited to:

- cheating on examinations, either by copying another student's work or by utilizing unauthorized materials
- using work of others as one's own original work and submitting such work to the university or to scholarly journals, magazines, or similar publications
- copying or appropriating someone else's work in visual or performing arts
- submission of someone else's work downloaded from paid or unpaid sources on the internet as one's own original work, or including the information in a submitted work without proper citation
- submission of another student's work obtained by theft, purchase or other means as one's own original work
- submitting the same work for more than one course without the knowledge and explicit approval of all of the faculty members involved, including applicable faculty from prior semester(s)
- unauthorized use of artificial intelligence tools to generate ideas, images, art/design, audio, video, code, or text for any portions of work
- destruction or defacement of the work of others
- aiding or abetting any act of academic dishonesty
- any attempt to gain academic advantage by presenting misleading information, making deceptive statements, or falsifying documents, including documents related to admission applications, academic records, portfolios, and internships
- any form of distributing one's work with the intent to enable students to use this work as their own, including, but not limited to, posting quizzes, papers, projects etc. on websites
- engaging in other forms of academic dishonesty that violate principles of integrity

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 Writing Center also provides useful on-line resources to help students understand and avoid plagiarism.

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.

● **Student Disability Services**

Student Disability Services (SDS) assists students with disabilities in need of academic and programmatic accommodations as required by the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Federal Rehabilitation Act of 1973.

If you are a student with a disability/disabled student, or believe you might have a disability that requires accommodations, please head to the SDS [website](#), and complete the Self ID form. Then, head to [Starfish](#) and find a time to meet with Nick Faranda, at a time of mutual convenience. If appropriate, you will be provided an academic accommodation notice for you to bring to me. This letter is necessary in order for classroom accommodations to be provided. Once you provide me with this letter, we will have a private discussion about the accommodations in relation to this course.

If you have any questions or concerns, please contact the Student Disability Services (SDS) at studentdisability@newschool.edu, or 212-229-5626. On the Parsons Paris campus, you may reach out to Brooke Berndtson, berndtsb@newschool.edu, at the Student Success office located on the 6th floor at 31 avenue de l'Opera.

While a student is never required to disclose disability-specific information, and faculty/staff are prohibited from asking disability-specific questions, in order to be eligible to receive and be afforded the protections of accommodations, a student is required to provide a letter to their professor and collaborate on any potential challenges with each other and SDS, if necessary/needed.

● **Student Course Evaluation**

During the last two weeks of the semester, students are asked to provide feedback for each of their courses through an online survey. They cannot view grades until providing feedback or officially declining to do so. Course evaluations are a vital space where students can speak about the learning experience. It is an important process which provides valuable data about the successful delivery and support of a course or topic to both the faculty and administrators. Instructors rely on course rating surveys for feedback on the course and teaching methods, so they can understand what aspects of the class are most successful in teaching students, and what aspects might be improved or changed in the future. Without this information, it can be difficult for an instructor to reflect upon and improve teaching methods and course design.

Parsons Paris Community Agreements

Cultivate a brave space – We cannot guarantee safety, but we can strive for a space where we share bravely, take risks, be vulnerable and hold each accountable with kindness and respect. No one knows everything; everyone knows something; together we know a lot. We are all learners and have different life experiences; we can all learn from each other without canceling anyone. We can't be eloquent all the time.

Be respectful – of your own feelings and those of others when speaking.

Honor Confidentiality – What we share stays here.

Share from your own experiences – Your perspective is shaped by your tradition, beliefs, identities and life experiences. Speak from your heart using “I” statements to take ownership of what you say. The only person you can truly speak for is yourself.

Honor silence and time for reflection – This also allows time for others to move up their speaking. Practice waiting: W.A.I.T. – why am I talking?

Practice active listening – Try to listen without judgment, with the intent of understanding the speaker. Listen to understand, not to respond. As soon as you're thinking “That's good.” or “I don't like that” or you're planning how you're going to respond, you are having a conversation in your mind and not listening to the speaker.

Agree to disagree... but don't disengage – Listen with the intent of understanding, not to agree or to believe what is being said. Your presence adds value to our group process. You do not have to agree or believe anything shared; your job is to listen for understanding. Disagree with the statement, not the person if you must disagree.

Acknowledge intent, address impact – We may not mean to cause harm, but it can happen anyway. When someone is hurt we first attend to the hurt person, and then can process why and how the hurt happened and how to prevent it in the future while maintaining active group engagement.

Acknowledge the liveliness of language – As an example, “you guys” may be intended as gender neutral but may not be received as such; the term “queer” can be offensive to one person and essential for another.

Move up, move up – If you usually don't share much, challenge yourself to share more; if you find yourself sharing more than others, challenge yourself to listen more.

Suspend status – We are all partners in our quest for insight and understanding, and we each have different areas of expertise.