

DES 320 Drafting & Sketching for Design

Pino Trogu

Professor, Information Design

www.trogu.com

Syllabus – Spring 2024

CLASS HOURS: Hybrid Asynchronous
Section 1: WED. 9–11:45 AM Rm FA119
Section 2: WED. 1–3:45 PM Rm FA 119
Section 3: TUE. 9–11:45 AM Rm FA119

OFFICE HOURS: THU: 9–12 (ZOOM)
email: trogu@sfsu.edu
web: faculty.sfsu.edu/~trogu

San Francisco State University
College of Liberal and Creative Arts
School of Design

Note: individual items in this syllabus are subject to change.

Last update: February 3, 2024

CATALOG DESCRIPTION

Mechanical and freehand drawing, the reproduction of drawings, and interpretation of graphic projections. Perspective drawing and the common elements of technical illustration. Signs and symbols of design and drafting.

Prerequisites: Restricted to upper-division Design majors and minors. Required for BSID majors. Activity. Extra fee required. [Formerly DAI 320]

Note that in addition to plus or minus letter grade, this course can also include the CR/NC option for which the deadline is *Friday, May 10, 2024*.

FEES

\$10 instructional materials fee.

MISSION STATEMENT

The School of Design serves a diverse body of students in the areas of Product Design and Visual Communication Design at both the undergraduate and graduate levels. Our curricula emphasize design process as a means of problem solving, and our classes help students to build the technical, conceptual, critical, and collaborative skills required in design professions.

COURSE MODALITY:

HYBRID: IN-PERSON & ASYNCHRONOUS

The class is Hybrid (Combination of in-person and online asynchronous). In-person meetings are: Tuesday: Section 3 (AM) from 9 to 11:45 am; Wednesdays: Section 1 (AM) from 9 to 11:45 am; and Section 2 (PM) from 1 to 3:45 pm. In the event that course zoom meetings be required, see the link to the Online Education Policy, which lists the rights and responsibilities of faculty and students during video meetings:

[S21-264 Revision to #F20-264 Online Education Policy](#)

CREDIT HOUR CALCULATION FOR ACTIVITY COURSES

This course is a 3-unit activity course. Direct instruction time is 150 minutes (2.5 hours) in-person and 150 minutes asynchronous (video lectures and demonstrations) on average per week. The asynchronous assignment each week is to review the videos pertaining to the drawings that we will work on the following week, so that you come to class prepared and minimal time is spent by the instructor on demonstrations. This way more time can be dedicated to one-on-one instruction. The expectation for out-of-class work (homework) is 150 minutes (2.5 hours) on average per week.¹

PHOTO AND VIDEO RECORDINGS

Students may not capture audio, photos or video from class sessions on their own devices without the explicit permission of the instructor and everyone present, unless part of a DPRC-authorized accommodation.²

Students are allowed to take photos of their own work, drawings and/or models in consultation with the instructor.

POSTING OF CLASS MATERIALS

Students may not post any course materials to any third-party sites (such as Chegg) or post any recordings, screenshots, audio or chat transcripts in any setting outside the class. Violations of this policy are subject to student disciplinary action.²

Students are encouraged to share course materials amongst themselves for the purpose of helping each other in the completion of assignments. Each student is still responsible for their own homework. See also the Honor Pledge and the Cheating & Plagiarism sections in this syllabus.

CLASS SESSION RECORDINGS

The Spring 2024 in-person sessions will not be recorded. This course already includes recorded lessons and demonstrations. Students are to consult those videos but especially to be active participants in class to maximize the learning experience and complete as much of the assignments as possible during the regularly scheduled class time.

CLASS COMMUNICATIONS

Class materials are available on Canvas: links to pre-recorded videos, PDFs, and other resources. Email is the preferred direct mode of communication outside of class times. **Students are required to check their SF State email address.** If your preferred address is not your school address, you must add forwarding to your account or you might miss communications from the instructor. Messages to students will also be sent using “Announcements” in Canvas. Make sure to install the Canvas Student app in your devices so that you can receive those announcements in a timely manner.

COURSE DESCRIPTION & GOALS

This course will introduce you to the practice of drawing and its relationship to design:

Basic vocabulary of drawing: line, volume, light, shadow, depth, contours.

Hand, eye, and body coordination when drawing.

Basic still life drawing of simple objects: boxes, bottles, balls (cube, cylinder/cone, sphere).

Free-hand sketching as well as technical drawing of physical objects.

Integration of drawing and sketching with written annotations.

¹ Credit Hour Definition: The SFSU definition of the credit hour aligns with the CSU (12/21/2020 Memo), WSCUC (Credit Hour Policy), and federal law (600.2 and 600.4 rev. 7/12020). University's [Credit Hour Policy S22-299](#).

² University's [Syllabus Policy S23-257](#) and [Guide for S23-257 Course Syllabus Policy](#).

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The three main types of projective geometry: (1) parallel projections; (2) orthographic projections; and (3) perspective.

Drawing as a continuous feedback loop – between hand, eye, and brain – that generates new drawings and ideas.

Drawing by hand will also enhance your computer drawing skills and will help you to understand the processes of 2D and 3D representation. These techniques will help you to prepare professional presentations in your design classes and help you build your design portfolio.

By learning how to draw and sketch, you will gain confidence in your design abilities and you will be able to clearly communicate your ideas and concepts to others.

LEARNING OUTCOMES

After completing this course you should be able to:

1. Use different line weights in a drawing to communicate different aspects of the drawing: the “alphabet of lines”.
2. Understand and use drawing techniques deeply rooted in a long tradition of draftsmanship going back to the Renaissance.
3. Sketch models, environments, and other objects.
4. Produce crisp and clean drawings as part of professional presentations.
5. Use sketching as a prototyping environment that permits faster drawings than with digital tools.
6. Use your hand to not only depict existing objects, but also to imagine, and depict objects that do not yet exist.
7. Produce professional-looking drawings that will build your confidence in your drawing ability, regardless of your initial skill level.

8. Through hand-drawing, enhance your computer drawing skills and understand 2D and 3D representation processes, which are mostly hidden when a drawing is made on the computer.
9. Demonstrate the use of drawing tools to produce technical line drawings.
10. Demonstrate the use of drawing methods including tracing, making revisions, and scaling.
11. Visualize a sectioned cube using progressive sections and transformations from 2D to 3D space.
12. Draw the sectioned cube in orthographic, isometric, and perspective projections.
13. Construct the sectioned cube using drafting tools, cutter, paper and glue/tape.
14. Interpret a technical drawing for the purpose of constructing the object depicted in the drawing.

SIGNIFICANCE

In addition to creating quick ideation sketches, design professionals also need to accurately describe the size and shape of an object or environment, so that it can be physically produced. They produce these drawings with standardized line work, notation and measuring conventions. The foundation of their drawing techniques is rooted in the tradition of pen and ink drawing with mechanical instruments used by architects and engineers since the Renaissance.

These drawings are sometimes called mechanical drawings, engineering drawings, construction documents, or shop drawings.

Knowledge of the traditional techniques taught in this class will strengthen your drawing skills and help you to think more analytically about how to solve design and manufacturing problems.

INSTRUCTION

Demos, videos, and other materials presented in-person are also available in Canvas. During the in-person meetings, the instructor will review the assignments, provide additional instruction, and clarify issues that students might bring. As time allows, individual feedback will be given that benefits the whole class. Although there will not be individual, public critiques of anyone's specific work in progress, students are encouraged to share their work and receive feedback not only from the instructor but also from fellow students.

PROJECTS & GRADES

Final grades will be based on:

1. Comprehension and understanding of concepts covered in the course.
2. Quality of work during semester.
3. Complete assignments by the due dates.
4. Attendance

DRAWING INFORMATION

All assignments must be identified with the following information written in the title block. Unless otherwise noted, any drawing missing the title block with this information (and the border) will automatically receive a “0” grade.

1. Assignment number – **VERY IMPORTANT** – and title, abbreviated when necessary
2. Roster number & your name
3. Course # and teacher's last name
4. Assignment due date
5. Six-digit code (above #4 cell)

See also the [title block video](#) and [Canvas title block page](#) for more details.

Title block information:

#7 Sketch Ellipses
22 Jane Doe
SFSU DES 320–01 Trogu
Sept. 13, 2023
01 22 07 (above date)

LETTER GRADES & POINTS

A	96–100
A–	92
B+	88
B	84
B–	80
C+	76
C	72
C–	68
D+	64
D	60
F	59–0

- A. Performance of the student has been of the highest level, showing sustained excellence in meeting course responsibilities and personal potential.
- B. Performance of the student has been good, though not of the highest level.
- C. Performance of the student has been adequate, satisfactorily meeting the course requirements.
- D. Performance of the student has been less than adequate.
- F. Performance of the student has been such that course requirements have not been met.

SFSU grading policy

<http://bulletin.sfsu.edu/policies-procedures/grading/#gradingpolicy>

PASSING GRADE

With the default letter grade option, a grade of “C” or higher is required to pass the class. In alternative to plus or minus letter grade, in this course you can also request a CR/NC grade.

ASSIGNMENT (DRAWING) FORMAT

All drawings will be physical drawings on paper and be turned in typically a week later during the class time.

CATEGORIES & WEIGHTS

1. Line Plane Volume	26.6 %
2. Cube Section	24.2 %
3. Perspective	24.8 %
4. Attendance	23.4 %
TOTAL	100 %

ASSIGNMENTS & SETS

Individual assignments will receive written feedback on the physical drawing as appropriate, however each drawing will receive simply a nominal grade of 1 point. All drawings in each individual category will be graded as a set and the set will receive a grade out of 100. So during the semester you will receive three comprehensive grades total for the three categories. The benchmark for evaluation will be the drawing examples provided in class and on Canvas. Of course I will also take into account initial skill level, effort, improvement, general attention to detail, and organization.

On Canvas you can check your grade for individual assignments (1 or 0 if late), for each category, and for the overall course grade. Empty grades in any listed assignment do not affect your overall grade.

WORK REVISIONS

Assignments *turned in on time* can be improved later for a better overall category grade. Make corrections on the original sheet or submit revisions along with the original work, or both. You must alert me to any revised work. Late work cannot be revised for a better category grade, although you are welcome to revise it for personal improvement and for a better personal final portfolio.

LATE WORK

Unless otherwise noted, assignments will be due every week. Bring the drawings to class on the day of your section. If an assignment is late, the assignment grade will automatically be “0”, however the work will still be graded as part of the overall category grade. If you have questions about how you are doing in the class or disagree with a given grade, email me or schedule an appointment with me to discuss your progress.

ATTENDANCE

Attendance in the in-person meetings is required. This category is worth 23.31% of the total class grade. A grade of C is

required to pass this category. However, failing this category will not, by itself, result in failing the course. Of course, a low grade in this category will negatively affect your overall grade and possibly contribute to a failing grade for the course once all other categories are accounted for, so it's very important that you attend all the classes in the semester.

Attendance points: 100 pts

Each absence = 7 pts

Each tardy or leave-early = 2 pts

Failing the attendance category means missing more than four meetings (28 points) or missing more than an equivalent combination of absences / tardies / leave-early, resulting in a grade of C– (71/100) or lower for the category.

Attendance is taken at start of class. Tardy means arriving after roll has been taken. If you arrive after roll is taken, it's your responsibility to alert me so that you are only marked late and not absent. Leave-early means leaving class before the scheduled end of the class. If you need to leave early for any compelling reason please ask in advance. If you arrive to class 1/2 hour after roll is taken, then 3 points will be deducted. If you leave class 1/2 hour before the end of class, 3 points will also be deducted.

Excused absences include being sick or other major events that prevent you from coming to class. You must email me in advance if you know you can't come to class or email me as soon as possible if you can't come because you feel sick that day.

NO CELLPHONE USE IN CLASS

Cellphone use is not permitted in the classroom during class sessions, including during the breaks. At the start of class or upon arrival if late, you are to place your phone in your assigned space in the provided cabinet next to the desks.

If you need to login to Canvas, please do

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so prior to the start of class, using the DUO authentication app. I recommend that you also get a physical “token” as an alternative authentication method. You can request one here:

<https://its.sfsu.edu/service/twofactorauthentication2fa>

This is great because you don't need your phone and it will also work if you are traveling abroad.

During class, you can use your phone only during break, but only outside the classroom, during the regular 15-minute break which is typically from 10:15 to 10:30 AM in the morning or from 2:15 to 2:30 PM in the afternoon. If you need to consult online class materials during the regular class time, use your laptop instead or a tablet if you have one. However other, non-course related activities such as texting, internet surfing, and other social media personal activities are also not permitted on the laptop or other electronic devices. Improper phone or laptop usage during the class time as described above will affect your attendance grade as follows:

2 points will be subtracted from the attendance category for each instance of phone usage and/or laptop usage not directly related to classroom work.

NO EATING OR DRINKING IN CLASS (WATER OK)

No food or drinks of any kind, besides water, to be consumed in the classroom. If anyone eats or drinks during class, they will be asked to leave. Please be respectful of your fellow students and the teacher to ensure that we keep a clean and welcoming environment. Similar to the phone policy, I will subtract 2 points from the attendance category for each instance of eating or drinking in class as described above.

WINDOWS & SWEATERS

Please bring an extra sweater or other warm clothing that will keep you warm during class. Face masks are not re-

quired, but to minimize the risk of covid transmission I will keep the windows open for the duration of the class. Please plan accordingly. I will still be wearing a mask, but I will use a wireless mic and speakers, which will still allow me to communicate clearly with the class at all times.

REQUIRED TOOLS & SUPPLIES

Drawing instruments, materials, and tools will cost approximately \$100.

Additional tools, recommended but not required, are shown and listed in video and PDF linked below.

See this [tools and supplies video](#) and this [tools and supplies PDF](#) for details.

1. Mechanical Lead Holder
2. Staedtler Mars Plastic Eraser.
3. Dahle 301 Precision Sharpener for 2mm Leads.
4. Coopay Triangle Set 30/60° (9") & 45/45° (6")
5. Kern Jointed Bow Drafting Compass — For drawing circles and geometric constructions.
6. Alternative to #5: Alvin Introductory Bow Drafting Compass
7. AluMicolor Aluminum Straight Edge 12-Inch Silver
8. Optional 1: AluMicolor Aluminum Straight Edge 15-Inch
9. Optional 2: Officemate Steel Ruler 15 inches
10. OLFA 180 Multi-Purpose Knife
11. Strathmore 9x12 inch 300 Series Bristol Pad Smooth Surface
12. Strathmore Tracing Paper Pad 9x12
13. Canson Sketching Pad Fine Grain 9x12.
14. Lumograph Pencil B for sketching.
15. 1Staedtler Double Hole Pencil Sharpener.
16. Multi-Surface Adhesive Tape, 0.94 Inches x 60 Yards, 1 Roll
17. 3M Magic Tape with Dispenser 3/4" x 800" — For cube construction.
18. Aleene's All Purpose Turbo Tacky Glue, 4-Ounce

Art supply stores in the Bay Area:

1. **Flax** Fort Mason Center, SF (local)
2. **Arch** 10 Carolina St, SF
3. **Artist & Craftsman** 2573 Shattuck Avenue, Berkeley
4. **Blick Art Materials** 1930 Van Ness, SF

RECOMMENDED BOOKS

Links are to online stores, but the school library will have most of them.

Koos Eissen and Roselien Steur
[Sketching: The Basics](#)

Dora Miriam Norton
[Freehand Perspective and Sketching](#)

Manfred Maier
[Basic Principles of Design. The Foundation Program at the School of Design, Basel, Switzerland](#)

Koos Eissen and Roselien Steur
[Sketching: Drawing Techniques for Product Designers](#)

Francis D. K. Ching
[Architectural Graphics](#)

Francis D. K. Ching and Steven P. Juroszek, [Design Drawing](#)

Kevin Henry
[Drawing for Product Designers](#)

Alan Pipes, [Drawing for Designers](#)

Kurt Hanks, [Rapid Viz](#)

Mike Lin
[Drawing and Designing with Confidence](#)

Kimon Nicolaïdes
[The Natural Way to Draw](#)

Betty Edwards
[Drawing on the Right Side of the Brain](#)

Mario Bollin, [Zeichnen](#) (in German)

DRAWING LINKS

Trogu: [drawing youtube playlist](#)

Trogu: [youtube rapid viz playlist](#)
[sketchingskills.com](#)

[sketch-a-day.com](#)

[beloose.com](#)

[michaelditullo.com](#)

[ryanchurch.com](#)

[carlliu.com](#)

ralphmcquarrie.com
sydmead.com
drawthrough.com

RECOMMENDED BOOKSTORE

William Stout Architectural Books
804 Montgomery, SF
stoutbooks.com

HONOR PLEDGE

Please read the Honor Pledge at the end of this syllabus. Sign a copy of the *last page only* during the first week of instruction to acknowledge that you have read the pledge and confirm that you will abide by it throughout the course.

CHEATING & PLAGIARISM

Please read the Honor Pledge at the end of this syllabus. Sign and return a physical copy of the last page at the beginning of the semester, to acknowledge that you have read the pledge and confirm that you will abide by it throughout the course.

Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one's grade or obtaining course credit; such acts also include assisting another to do so. Typically such acts occur in relation to examinations. However, it is the intent of this definition that the term "cheating" not be limited to examination situations only, but that it include any and all actions by a student that are intended to gain an unearned academic advantage by fraudulent or deceptive means.

Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the materials (i.e. their intellectual property) so used as one's own work. Penalties for cheating and plagiarism range from a zero or "F" on a particular assignment, through an "F" for the course, to expulsion from the university. For more information on the University's policy regarding cheating and plagiarism, refer to the University Catalog (Policies and Regulations).

Information about the College of Liberal & Creative Arts policy and procedures regarding plagiarism can be found at the following URL:

<http://lca.sfsu.edu/faculty/plagiarism-resources>

Code of Best Practices in Fair Use for the Visual Arts, Published by the College Art Association:

best-practices-fair-use-visual-arts.pdf

Other fair use links:

<http://fairuse.stanford.edu/overview>
https://en.wikipedia.org/wiki/Fair_use

DISABILITY POLICY

Students with disabilities who need reasonable accommodations are encouraged to contact the instructor. The Disability Programs and Resource Center (DPRC) is available to facilitate the reasonable accommodations process.

The DPRC is located in the Student Services Building and can be reached at:
By telephone: voice **(415) 338-2472**
By videophone: **(415) 335-7210**
By email: dprc@sfsu.edu
Website: sfsu.edu/~dprc

STUDENT DISCLOSURES OF SEXUAL VIOLENCE

SF State fosters a campus free of sexual violence, including sexual harassment, domestic violence, dating violence, stalking, and/or any form of sex or gender discrimination. If you disclose a personal experience as an SF State student, the course instructor is required to notify the Title IX Coordinator by completing the report form available at this website:

<http://titleix.sfsu.edu>
By email: vpasem@sfsu.edu
By calling: **415-338-2032**

To disclose any such violence confidentially, contact:

The SAFE Place: **(415) 338-2208**

http://www.sfsu.edu/~safe_plc/
Counseling and Psychological Services Center: **(415) 338-2208**

<http://psyservs.sfsu.edu/>

For more information on Title IX, on your rights and for available resources:

<http://titleix.sfsu.edu>

OBSERVANCE OF RELIGIOUS HOLIDAYS

The Academic Senate Policy on the Observance of Religious Holidays (S09-212) indicates that: "The faculty of San Francisco State University shall accommodate students wishing to observe religious holidays when such observances require students to be absent from class activities..." The following is a link to an Interfaith Calendar, which lists "Primary sacred times for world religions":

interfaith-calendar.org

Complete details regarding this Policy, including implementation can be found on the Academic Senate website:

senate.sfsu.edu/content/policy-observance-religious-holidays

CANVAS SUPPORT

<https://canvas.sfsu.edu/>

Email: at@sfsu.edu

Telephone: (415) 405-5555

Location: LIB 80, J. Paul Leonard Library

Office Hours: 8am to 8pm Monday through Thursday; 8am-5pm Friday

DROPPING CLASS AND WITHDRAWING

Through the third week of classes, students may drop a class or faculty may drop students "who do not attend the

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first class meeting or do not meet the course criteria” as specified in the Bulletin. Afterwards, please be aware that a WU (unauthorized withdrawal) grade is counted as an F for GPA purposes. To avoid a WU grade, you are encouraged to drop before the end of the third week if you think you will not be able to “meet the course criteria.”

In Spring 2024, that drop deadline is Friday, February 16, 2024.

Important: Please also note that: *“During the first three weeks of instruction (...) faculty are authorized to instructor-drop students who do not meet the course prerequisites or who do not participate at all during the drop period (i.e. not attending or handing in assignments, (...)).”*

From “Dropping and Withdrawing”

<https://registrar.sfsu.edu/withdrawal>

Under “Drop (weeks 1 of 3 of instruction)”.

From the beginning of the fourth week through the twelfth week of instruction, withdrawal from a course will be permissible, for serious and compelling reasons, by consulting the faculty member teaching the course. The student must complete a “Petition for Withdrawal from Course or University” and submit the petition to the instructor for a decision. Such approved withdrawals will result in a “W” grade, which does not affect your GPA.

The full university rules regarding withdrawals can be found at:

<https://registrar.sfsu.edu/withdrawal>

You, the student, are responsible for withdrawals and should be aware of relevant deadlines related to the withdrawal process. All important dates are listed in the Academic Calendar for the

specific semester:

<https://webapps.sfsu.edu/public/webcal/acadcalendar>

COVID19 INFORMATION

See below regarding covid-19 safety:

Policy Resolution #SU20-292 Temporary Changes to #F10-257 Syllabus Policy to Enhance COVID-19 Communication

[policy_on_temporary_changes_to_syllabus](#)

RIGHTS AND RESPONSIBILITIES

We have placed a lot of emphasis in this country on the idea of people's *rights*. That's how it should be, but it makes no sense to talk about rights without also talking about responsibilities.

*from The Last Lecture
by Randy Pausch*

To paraphrase from Prof. Pausch's book, this syllabus is an agreement between you, the student, and myself, the teacher.

You have the responsibility to be honest in your work and work constructively with the teacher and the other students. In return, you have the right to be in the course and receive constructive feedback from the teacher. This will be in the form of grading and comments on the assignments or communication via email, in addition to direct instructor feedback and support during the live in-person classes and/or the video meetings, or through other means allowed by the hybrid format.

I will read every email – the preferred mode of offline communication – and will try to respond promptly to the best of my ability.

HONOR PLEDGE

I pledge on my honor that I will complete all the assignments in this course in full honesty and without the improper help from others. In addition, I pledge to be honest with regards to the attendance policy, and request absences to be excused only if they are truly due to sickness or other serious circumstances, and I accept responsibility for any other unexcused absence and its resulting point deductions.

In regards to course work, I pledge that unless the assignment already includes some form of copying, tracing, or reproducing an existing pattern or drawing, I will not simply copy or trace the drawing examples found in Canvas's images or PDFs and present them as my work. Also, I will not copy or trace drawings seen in the video tutorials or in other Canvas materials and present them as my original work. I also pledge to not use Artificial Intelligence (AI) programs or websites to automatically create any drawings or other deliverables which are required to fulfill the assignments of this course. I will consult with the instructor in advance for clarification that might be needed for a particular assignment with regards to the processes above.

I pledge to follow the above processes and be honest about my work in this course throughout the semester.

I have read and I agree to the syllabus and to the honor pledge above.

Signature _____

Print name: _____

Date: _____

A paper copy of just this last page will be available in class on the first day of instruction, for you to sign and date and give to the instructor.