

San José State University
Department of Design / Industrial Design Program
Visualization II, DSID 22 Section 03, Spring 2020

Instructor:	Prof. John F. McClusky
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Office Hours:	W Th 10:00-11:00
Class Days/Time:	T/Th 12:00-2:50pm
Classroom:	IS 118
Prerequisites:	DSID 21 or Instructor Permission
Corequisites:	BSID Major: DSID 32 and DSID 32A BA Design Studies (ID): DSID 32

Canvas Course Management Website

This course uses a hybrid method of teaching. A hybrid course means that there are components of the course that are done in the classroom and other components that require using the online course management system. Copies of the course materials such as the syllabus, assignment handouts, grading, etc. may be found on the DSID 22 course Canvas website. You may find your link to this website on MySJSU, along with your login/password info. You are responsible for regularly checking with the messaging system in Canvas for course updates, assignments, etc. All class correspondence and grading will also be managed through the class Canvas site. If you do not check Canvas often, you should set up your email forwarding to forward all class correspondence to your preferred email address. You must have access to a computer and Internet to be able to access the Canvas site. You may also use a tablet or your phone. Some assignments will be required to be turned in both in class on paper and on Canvas. Therefore, you will need to have access to some basic software such as MS Office (MS Word) or some writing software, Adobe Acrobat (for

making pdfs), and basic scanning software for scanning sketches to upload to the assignment portal. See [University Policy F13-2](http://www.sjsu.edu/senate/docs/F13-2.pdf) at <http://www.sjsu.edu/senate/docs/F13-2.pdf> for more details. Additionally, you will also need recent copies of Adobe Photoshop, Adobe Illustrator and Autodesk Sketchbook Pro.

Course Description

This course will introduce students to the standard type of sketching that is used in the Industrial Design profession. Students will learn sketching, rendering and presentation techniques used by designers for communicating their 3D concepts on paper and in the digital environment. Students will be introduced to software programs used to transition hand sketches to the digital mode (Autodesk Sketchbook Pro, Adobe Photoshop and Adobe Illustrator). Despite the introduction of new tools and techniques, it is important to continue building on what you learned previously in DSID 21 on perspective construction and its relationship to cross sections and orthographic projection. There will be a heavy emphasis on this subject matter as you learn new tools and techniques.

Course Goals and Student Learning Objectives

Student Learning Objectives

Students will be competent in visually communicating their design ideas using both hand and digital drawing techniques.

Course Learning Outcomes (CLO)

Upon successful completion of this course, students will be able to:

- LO1 Sketch and visually communicate design concepts using rapid visualization techniques.
- LO2 Explain design ideas fully using "exploded views", "rendered orthographic views", "explanatory drawings", "detailed renderings".
- LO3 Use both hand drawing and digital drawing tools.
- LO4 Create graphic presentations of all of the drawings as though they were presenting a completed Industrial Design project (from concept through rendering) to a client.
- LO5 Demonstrate professional practices in understanding and delivering finished assignments on time and within required quality levels.
- LO6 Practice an uncompromising and high professional standard for 2D skills, techniques, tools, materials, and craftsmanship.
- LO7 Collect, archive, edit, and produce a portfolio of work.
- LO8 Discuss, critique, and engage in professional review of they and their peers work.
- LO9 Memorize specific principles of drawing construction, execution, and presentation.

LO10 Use design awareness, knowledge and intent, both in their own work and when discussing the work of others in informal classroom discussions as well as formal critiques at the end of each project. This should be demonstrated in their ability to actively discuss, critique, and engage in professional review of their work and that of their peers work.

Required Texts/Readings

Textbook

Robertson, Scott. *How to Render*, Design Studio Press, 2014. ISBN: 978-193349296-4

Robertson, Scott. *How to Draw*, Design Studio Press, 2013. ISBN: 978-1933492735

You should also regularly refer to your textbooks from DSID 21 in order to refresh yourself on techniques and methods of drawing objects in perspective in an effective manner.

Recommended Readings

Eissen, Koos and Steur, Roselien. *Sketching: The Basics*, BIS Publishers, 2011. ISBN: 978-90-6369-253-7

Eissen, Koos and Steur, Roselien. *Sketching*, BIS Publishers, 2007. ISBN: 978-90-6369-171-4

Olofsson, Erik and Sjoolen, Klara. *Design Sketching* (available at www.designsketching.com) Softcover ISBN: 978-91-976807-0-7

<https://vimeo.com/idsketching>

<http://www.sketch-a-day.com/>

<https://www.youtube.com/user/sketchadaydotcom/videos>

Required Materials List

Things you are responsible to acquire and will be available in the Blick Kit available in class on Thursday, January 23th, Monday, January 27th, and Tuesday January 28th in room IS118 during the first part of DSID22 classes held at that time:

<i>Blick Item #</i>	<i>Qty</i>	<i>Description</i>
Item #	Qty	Description
10604-1017	2	BIENFANG MARKER PAD/14X17 50SHT

15019-2057	1	ITOYA ART PROFOLIO/BLACK 17X11 24 PAGE HORIZONTAL
57216-9000	1	CORRECTION PEN/WHITE/ FINE POINT
20508-5201	3	PRISMACOLOR CLR PNCL/INDIGO BLUE 901
20508-1001	3	PRISMACOLOR CLR PNCL/WHITE 938
21315-2003	1	SHARPIE ULTRA FINE/BLK 0.3MM
21316-2001	1	SHARPIE FINE PT MRKR/BLACK FINE
15019-0017	1	ITOYA ART PROFOLIO/PORTFOLIO 17X14
20508-2001	3	PRISMACOLOR CLR PNCL/BLACK 935
10505-9012	1	TRACING PAPER ROLL/WHT 12X50YD
20702-2004	2	PIGMA MICRON PEN/05 BLACK .45MM POINT
10382-1023	1	BIENFANG SKETCHBOOK/9X12 75SHT SPIRAL
55744-2012	1	FLEXIBLE CURVE/12 INCH
21587-1001	1	Sm General's Kneaded Eraser
22111-1360	1	Copic Sketch Marker - Lipstick Red R29
20034-3161	1	Prismacolor NuPastel Color Sticks - Crimson Red
22111-5230	1	Copic Sketch Marker - Ultramarine B29
20034-5233	1	Prismacolor NuPastel Color Sticks - Ultramarine Blue
22111-8010	1	Copic Sketch Marker - Cashew E79
20034-8311	1	Prismacolor NuPastel Color Sticks - Van Dyke Brown

Other suggested materials

There are many equivalent materials for many of the above supplies. It is highly recommended you use the Prismacolor, Copic, Bienfang products and the other suggested brands as they are of the best quality and will ensure consistent results. Many of these materials can be purchased the 1st day of the semester through Blick Art Supply. They will be on campus on Wednesday, January 23 in IS118.

Library Liaison

Aliza Elkin, Liaison Librarian for Design Department
 Email: Aliza.elkin@sjsu.edu
 Phone: 408.808-2043

Classroom Protocol

Success in this class depends on class participation. If you are not in the class you will not be able to participate. Critiques, Lectures, and demonstrations will typically happen at the beginning of the class so being in the classroom on time is important to gaining the content of the class. Attendance will be taken at the beginning of each class period as one of the

ways to quantify class participation (if you aren't there, you can't participate). Attendance will sometimes be taken at the end of class. Discussion in class is a powerful instigator of a learning experience. You are encouraged to participate in class discussions and your level of participation will be noted. You will be called upon to critique your own and other student's work. When asked you will be expected to rapidly put your work on the wall for critiques. Since late arriving students are not able to participate in the early part of the class, and because late arriving students disrupt the class, if you are late to class do not enter the classroom. It is expected that there will be at least 2 hours of homework for each hour of class.

Assignments and Grading Policy

Students will be engaged in demos, discussions, critiques and assignment work during class meeting times and they will be assessed on engagement in those activities in their Participation grade (LO5). Students will have homework assignments to do outside of class (12-18 hours per week) as required by the course assignments (LO 1-10). Students will be required to be present to discuss their work in classroom critiques (LO 10). Grading will follow the standard SJSU A-F system as indicated below:

A+, A, A- / 100+ - 91% / Excellent
 B+, B, B- / 90 – 81% / Above Average
 C+, C, C- / 80-71% / Average
 D / 70-61% / Below Average
 F / Below 61% / Failure

Grading Criteria:

A = Excellent. Near perfect and near professional level work.
 B = Above average. Exceeds expectations and is clearly above the average in the class
 C = Average. Meets expectations and is average for the class
 D = Below average. Does not meet expectations. Is missing parts of the assignment or has not followed direction given in lectures, demonstrations and examples.
 F = Failed to complete the assignment. Is missing significant parts of the assignment and quality is far below expectations.

Only assignments turned in on time will be graded, except for documented excused absences such as an illness (with a doctor's verification), or death in the family. Late assignments will not be accepted. No extra credit is available. No make-up is available without legitimate above described qualified excuse.

Grades for assignments will be divided in the following percentages (LO 1-9):

Class Participation in discussions and classroom exercises	20%
Product Redesign	20%
Final Exam - Digital Portfolio+ sketchbook	15%

Assignments

45%

All assignments are due on time. No late work is accepted. No assignments may be “redone” for a better grade. Extra credit is not possible in this course as the workload is significant enough. A passing grade for this course is a C. The Participation grade in this course will be assessed through your engagement in Work/Practice sessions and critiques each week.

University Policies

SJSU’s Office of Graduate and Undergraduate Programs maintains university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. You may find all syllabus related University Policies and resources information listed on [GUP’s Syllabus Information Web Page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>.

Student Technology Resources

It is a requirement for ID students to have their own computer with the required software (Adobe CS, SolidWorks, MS Office), and it is highly recommended that by the time students pass DSID 123A that all BSID students have a large format printer (11”x17” or 13”x19”). Computer labs for student use are available in the [Academic Success Center](#) located on the 1st floor of Clark Hall. Computers are also available in the Martin Luther King Library. A wide variety of audio-visual equipment is available for student checkout from [Media Services](#) located in IRC 112. These items include digital and VHS camcorders, VHS and Beta video players, 16 mm, slide, overhead, DVD, CD, and audiotape players, sound systems, wireless microphones, projection screens and monitors. Printing can be accommodated using your own large-format printers, by payment through the IDSA Student Chapter or going to Plotter Pros (<http://www.plotterpros.net/index.shtml>) in San Jose or other professional printing service providers.

Adobe Creative Suite licenses have been available through the SJSU Adobe software program for faculty, staff, and students. Students can access Adobe Creative Suite 6 Design and Web Premium, and should be able to download it from <http://its.sjsu.edu/services/adobe/>. Adobe Creative Suite 6 Design and Web Premium includes: Photoshop CS6 Extended, Illustrator CS6, InDesign CS6, Dreamweaver CS6, Flash® Professional CS6, Fireworks® CS6, Acrobat® X Pro, Bridge CS6, Media Encoder CS6.

DSID 22 / Visualization II, Spring 2019, Course Schedule

Schedule is subject to change with fair notice (one week) in class or via notice on CANVAS.

YELLOW: Intro Assignments

GREEN: Primitives

BLUE: Material Cylinder

PEACH: Shoe Design or Door handle

TEAL: Speed Form

PURPLE: TECHNIQUES:

GRAY: Product Redesign

Table 1 Course Schedule

Week	Date	Topics, Readings, Demos, Assignments, Deadlines
1	Th 1/23	Assign visual library two due dates A1... 2/06 and 3/03 Present visual library examples Assign Sketchbooks with two due dates... 3/05 and 4/24 Demo – traditional media grayscale primitives Assign – Grayscale Primitives using traditional media. (A3 - Consult Canvas for all project descriptions) Purchase Blick kits
2	T 1/27	Critique – Grayscale Primitives using traditional media. (A3) Demo – Grayscale Primitives using digital tablets. Assign – Grayscale Primitives using digital tablets. (A4)
	Th 1/29	Critique – Grayscale Primitives using digital tablets. (A4) Demo – Color Primitives with traditional media Assign – Color Primitives with shadows using traditional media. Use tracing paper overlays to accurately project shadows on the ground plane and each other. Transfer shadows and reflections on to the final compositions. (A5)
3	T 2/3	Due: Visual library examples & Critique – Color Primitives with traditional media (A5) Demo – Color Primitives with digital media (A6) Assign – Color Primitives with digital media (A6)
	Th 2/5	Due: A6 Critique – Color Primitives with digital media (A6) Demo – Material cylinders (traditional) Assign – Material Cylinders 7.1(traditional)

4	T 2/10	Critique – Material Cylinders A7.1 (traditional) Assign – Material Cylinders (digital) – 2 additional cylinders and revisions of previous (A7.2)
	Th 2/12	Work session – Come prepared with questions regarding material cylinders
5	T 2/17	Critique – A7.2 Material Cylinders 2.0 – 2 additional cylinders and revisions of previous (7.2) Demo – Door handle design sketching Assign – Door handle design sketches (A8.1)
	Th 2/19	Critique –Door handle design concept sketches (A8.1). Demo – Door handle design Illustrator layouts and “flattening” Assign – Door handle design rendering. (A8.2)
6	T 2/24	Critique – Door handle design rendering. (A8.2) Demo – Adobe Photoshop rendering Assign – Photoshop rendering of final door handle design (A8.3)
	Th 2/26	Work Session – Class Discussion on Speedform Revisions Demo - Speedforms Assign – Concept Sketches for Revised Speedform (A9.1)
7	T 3/2	Critique – Concept Sketches for Revised Speedform (A9.1) Demo – Rendering Speedforms in Photoshop Assign - Speedform Renderings (A9.2)
	Th 3/4	Critique – Final Speedform Presentation (A9.3)
8	T 3/9	Work Session – Disassembly, analysis and documentation of existing products (A10) Assign - Disassembly, analysis and documentation of existing products (A10)
	Th 3/11	Work Session – Disassembly, analysis and documentation of existing products (A10) Assign – Post product analysis information packages online. (A10)
9	T 3/16	Class work session: Initial Concept Sketches
	Th 3/18	Critique – Product Redesign: Initial Concept Sketches Assign –(11.1)
10	T 3/23	Class work session: Refined Concept Sketches
	Th 3/25	Critique – Product Redesign: Refined Concept Sketches (Assign. 11.2) Assign – Bring your DSID31 Speedform Project to class on Weds. April 7th
11	3/30-4/3	Spring Break: Campus Closed

12	T 4/7	Work Session – Drawing hands/people (traditional)
	Th 4/9	Work Session – Drawing hands/people (digital) Assign – A13 (hand/person practice)
13	T 4/14	Work Session – Electric stapler Photoshop class exercise Assign – A14 (electric stapler)
	Th 4/16	Work Session - Product Redesign: Orthographics and Cross Section Views (A11.3) Assign - Product Redesign: Orthographics and Cross Sections (A11.3)
14	T 4/21	Critique – Product Redesign: Orthographics and Cross Section Views (A11.3) Demo – As needed Assign - Product Redesign: “Beauty Shots” and Human Scale Drawings (A11.4)
	Th 4/23	Due – Assignment 2.2: Sketchbook (2 nd Installment) Work Session – Product Redesign: “Beauty Shots” and Human Scale Drawings (A11.4) Assign – Exploded View (A11.5)
15	T 4/28	Critique – Product Redesign: “Beauty Shots” and Human Scale Drawings (A11.4) Demo – Exploded Views Assign - Product Redesign: Exploded View (A11.5)
	Th 4/30	Critique – Product Redesign: Exploded View (A11.5) Demo – As needed Assign - Product Redesign: Details and Visual Explanations (A11.6)
16	T 5/5	Critique – Product Redesign: Details and Visual Explanations (A11.6) Assign – Product Redesign drawing revisions (A11.7)
	Th 5/7	Final Critique – Product Redesign: Final Presentation Revisions (A11.7)
	Final Exam	No in-class final. Submit Digital portfolio on Canvas. Due on Canvas no later than 3pm on Tuesday, May 19. No late deliverables! Get it in early!