

Term Information

Effective Term Spring 2017
[Previous Value](#) Summer 2012

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

- New course title
- New course description
- New course syllabus and assignments

What is the rationale for the proposed change(s)?

We propose to revise this course as part of a new "Design Thinking Minor" that will be a modified version of the current "Design Minor (Design-MN) Track One: for all majors outside of Design or Pre-Design" program.

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

The new "Design Thinking Minor" will no longer include elective courses that are part of the current "Design Minor (Design-MN) Track One" program, though those Design courses will continue to be offered during the transition period.

Is approval of the request contingent upon the approval of other course or curricular program request? Yes

Please identify the pending request and explain its relationship to the proposed changes(s) for this course (e.g. cross listed courses, new or revised program)

Proposal for a new "Design Thinking Minor." Design 3105, Design 3505.

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Design
Fiscal Unit/Academic Org	Design - D0230
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	3305
Course Title	Visualization as Thinking
Previous Value	Design Visualization for Non-Majors
Transcript Abbreviation	Vis as Thnkg
Previous Value	Dsgn Vis Nn Mjr
Course Description	An overview of concepts, processes and modes of communicating with visual media to effectively generate design proposals.
Previous Value	Development of drawing skills to explore, observe, understand, record, analyze and communicate visual information.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course 14 Week, 12 Week
Flexibly Scheduled Course Never

Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture
<i>Previous Value</i>	<i>Laboratory</i>
Grade Roster Component	Lecture
<i>Previous Value</i>	<i>Laboratory</i>
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites	
Exclusions	Not open to students with credit for 201.

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	50.0401
Subsidy Level	General Studies Course
Intended Rank	Freshman, Sophomore, Junior, Senior

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors
The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes	<ul style="list-style-type: none">• Define the elements and principles of design as a visual vocabulary.• Explore visual techniques for idea generation.• Measure the success of a range of visualization techniques with respect to their desired messages/meanings.
<i>Previous Value</i>	
Content Topic List	<ul style="list-style-type: none">• 2D and 3D composition principles.• Visual objects, symbols, and grammar.• Modes of visualization — sketching, photography, diagrams, narratives.
<i>Previous Value</i>	<ul style="list-style-type: none">• <i>Drawing objects</i>• <i>Drawing environments</i>• <i>Drawing human subjects</i>

COURSE CHANGE REQUEST
3305 - Status: PENDING

Last Updated: Heysel,Garett Robert
04/12/2016

Attachments

- DSN_3305_Visualization_as_Thinking.docx: New Syllabus
(Syllabus. Owner: Nini,Paul Joseph)
- DSN_3305_Current_Syllabus.pdf: Current Syllabus
(Syllabus. Owner: Nini,Paul Joseph)
- DSN_3305_Visualization_as_Thinking_v2.docx: New Syllabus, Revised
(Syllabus. Owner: Nini,Paul Joseph)

Comments

- See 3-17-16 e-mail to P Nini. *(by Vankeerbergen,Bernadette Chantal on 03/17/2016 02:40 PM)*
- Both current and new (proposed) syllabi for this course have been attached. *(by Nini,Paul Joseph on 02/22/2016 04:17 PM)*
- Return to department at their request *(by Heysel,Garett Robert on 02/22/2016 02:19 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Nini,Paul Joseph	02/12/2016 03:01 PM	Submitted for Approval
Approved	Nini,Paul Joseph	02/17/2016 10:18 AM	Unit Approval
Revision Requested	Heysel,Garett Robert	02/22/2016 02:19 PM	College Approval
Submitted	Nini,Paul Joseph	02/22/2016 04:17 PM	Submitted for Approval
Approved	Nini,Paul Joseph	02/22/2016 04:18 PM	Unit Approval
Approved	Heysel,Garett Robert	03/01/2016 11:44 AM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	03/17/2016 02:40 PM	ASCCAO Approval
Submitted	Nini,Paul Joseph	04/11/2016 03:59 PM	Submitted for Approval
Approved	Nini,Paul Joseph	04/11/2016 04:00 PM	Unit Approval
Approved	Heysel,Garett Robert	04/12/2016 11:27 AM	College Approval
Pending Approval	Nolen,Dawn Vankeerbergen,Bernadette Chantal Hanlin,Deborah Kay Jenkins,Mary Ellen Bigler Hogle,Danielle Nicole	04/12/2016 11:27 AM	ASCCAO Approval

Design 3305: Design Visualization for Non-Majors

Department of Design

HA 105, W/F 10:00 AM – 11:55 AM

3 credits/4 contact hours, Laboratory Required Course

Michael Kellner

kellner.30@osu.edu

Office: HA 230

Office Hrs: W/F, 12:00-1:00 PM by appointment

I am also available to meet outside of these hours with planning.

Course Description

Development of drawing skills to explore, observe, understand, record, analyze and communicate visual information.

Prereq: Not open to students with credit for 201.

Format

This is a progress-oriented studio course that requires active student participation. Class meets one day a week for 4 hours. The course is comprised of demonstrations, presentations, assignments, participatory activities and individual meetings.

Objective

The aim of this course is to develop skills and techniques in seeing, perceiving and depicting man-made and natural objects as well as rapid ideation and communication techniques. Students will understand Western perspective as a system of communicating information to viewers while understanding some of the benefits and drawbacks of working inside this system.

Context

This course is one in a series of three foundation design minor courses (Design 3105, 3305 and 3505). It is intended to prepare the design student in visual thinking, problem solving, and idea communication.

Participation & Preparation

Students are expected to come to class motivated, prepared, and exhibit a professional work ethic towards excellence in all assignments and activities. Bring your drawing supplies to class every day. In-class participation is factored into all grades; if you do not have your drawing supplies you cannot participate and this will negatively impact your grade.

Attendance is taken each class through roll call. It is your responsibility to notify me if you miss roll. Unexcused absences may result in the final grade being lowered by a letter for each class missed. It is your responsibility to get any assignments or notes if you miss class. Please e-mail me if you will be missing class and explain why you are

not coming. No contact with regards to missing class will be considered an unexcused absence.

Grading

The assessment in this class comes from 7 drawing assignments and a final assignment. Each of the assignments is graded on a 100-point scale. The final will be worth 200 points. Extra credit is not available. Each assignment will be presented as an in-class handout and is due at the beginning of the class. Late assignments will be accepted for up to one week after the due date but will be deducted 10% per class. Once assignments are graded you are allowed one week to rework/redo the assignment to improve your grade. Reworking your assignment does not necessarily guarantee a higher grade but the hope is that you will understand, develop, and grow as a draftsman and designer as the course progresses.

We use the OSU standard scale:

A (100% – 93%) A- (92.9% – 90%) B+ (89.9% – 87%) B (86.9% – 83%)
B- (82.9% – 80%) C+ (79.9% – 77%) C (76.9% – 73%) C- (72.9% – 70%)
D+ (69.9% – 67%) D (66.9% – 60%) F (59% – 0)

Assignments are, by and large, graded on sketches, participation, meeting assignment criteria, concept, composition, and craftsmanship. Individual criteria will be itemized on each assignment sheet distributed to the class.

Academic Misconduct

"It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>."

Special Accommodations

Disability Services: Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated. Students should inform the instructor as soon as possible of their needs. The Office of Disability Services is located in 150 Pomerene Hall, 1760 Neil

Ave.; Telephone 614-292-3307, TDD 614-292-0901;
<http://www.ods.ohio-state.edu/>

Course Materials and Texts

Description & Locations

Students will need to purchase materials for the course. Blick Art Materials in the Short North is the Department Of Design's recommended location. If you have difficulty obtaining any materials, bring it to the instructor's attention immediately.
612 N. High St. ph: 614 – 224 – 7708.

Required Materials

- 1) Plastic 24" x 18" cutting mat.
- 2) 1 inch wide Utrecht/Blick white artists tape roll.
- 3) Utrecht/Blick 12" x 50 yard tracing paper roll.
- 4) Utrecht/Blick Technical pencil set (5b-5H).
- 5) Utrecht/Blick or equivalent storage box.
- 6) Pencil sharpener (Get one that holds shavings).
- 7) Professional Triangles, either 45/90/12in + 30/60/12in
- 8) Sharpie markers in fine point and ultra fine point.
- 9) Large kneaded eraser (Gray).
- 10) Mars Staedtler plastic eraser (White).
- 11) Utrecht/Blick 20" x 26" Softside Portfolio
- 12) 18" Allumicutter Metal ruler (This kind only!).
- 13) Utrecht /Blick 11" x 14" bristol board pad (Vellum surface).
- 14) X-Acto knife (Gripster is the best to go with!)
- 15) Utrecht or equivalent 9" x 12" Sketchbook.
- 17) Either Pigma Micron .5 Pen (you can also get a set of 6 if you like) or Pentel Arts Hybrid Technica .5mm.
- 18) 1 ea Markers: Cool Grey 30/50/70.

Suggested Text

McCloud, Scott. *Understanding Comics: The Invisible Art*. ISBN: 006097625X

Course Outline

W, January 13: Course Introduction, Syllabus, Materials, Basic Drawing Techniques, Introductory lecture, Blind Contours

F, January 15: **Due: 20 Blind Contours in Sketchbook**

Introduction to one and two point perspective and atmospheric perspective with boxes

W, January 20: Introduction to Observational Drawing (sighting, measuring, and proportion), Introduce Rapid Gesture Drawing, Project presentation demo

F, January 22: **Due: Assignment 1, Boxes in perspective**

Introduction to ellipses, cylinders, and cones.

W, January 27: Observational cylinders and boxes

F, January 29: **Due: Assignment 2, Theoretical and Observational Cylinders**

Rapid Gesture Drawing, Breaking Down Objects by Shapes, Basic Composition

W, February 3: One-point hallway perspective drawing

F, February 5: **Due: Assignment 3, 100 Drawings**

One and two-point hallway perspective drawing

W, February 10: Continue one and two-point hallway perspective drawing

F, February 12: Meet at Thompson Library to sketch

W, February 17: Review Thompson drawings in progress

F, February 19: **Due: Assignment 4, Two Views of Thompson**

Introduction of value in graphite and markers

W, February 24: Observational and theoretical value studies

F, February 26: Observational and theoretical value studies

W, March 2: **Due: Assignment 5, Value Studies**

Advanced composition lecture

F, March 4: Collaborative Drawings

W, March 9: Journey Drawings

F, March 11: **Due: Assignment 6, Positive/Negative Compositions**

W, March 16: Off, Spring Break

F, March 18: Off, Spring Break

W, March 23: Introduction to Hand Anatomy, Hands and Objects

F, March 25: Continue with hands and objects

W, March 30: In-class transformation drawings

F, April 1: Continue with in-class transformation drawings

W, April 6: **Due: Assignment 7, Objects and Hands**

Narrative Lecture and examples, Outline of final assignment

F, April 8: Exquisite Corpse Narrative Exercise

W, April 13: Peer review final narratives, In-class narrative visualization

F, April 15: Drawing Scavenger Hunt

W, April 20: Final in-progress critiques

F, April 22: **Due: Final Assignment**

The instructor or the department reserve the right to modify this syllabus and the course content within as needed.



THE OHIO STATE UNIVERSITY

SYLLABUS: DSN 3305 VISUALIZATION AS THINKING

AUTUMN 2016

Course overview

Instructors

Instructor: _____

Email address:

Phone number:

Office hours:

Course catalog description

An overview of concepts, processes and modes of communicating with visual media to effectively generate design proposals.

Course emphasis

The purpose of this course is to provide an overview of how the process of visualization enhances one's ability to communicate ideas, concepts, and meanings that are not easily depicted, including abstract, simple, or complex evidence. It is intended to provide an awareness of the types and range of visuals that can be used to document and share information. It provides a general overview of useful strategies for translating and documenting data and other types of content.

Course format of instruction

The format of instruction of this course is lecture/discussion. Students will complete quizzes and exams. They will submit assignments that are completed outside of class.

Course learning outcomes

By the end of this course, students should successfully be able to:

- Define the elements and principles of design as a visual vocabulary;

- Explore techniques for idea generation;
- Recognize the impact of cognition on the translation and understanding of visual information;
- Explain the advantages and disadvantages of expressing information through drawings and sketches, diagrams, graphs and charts, photographs, models and simulations, moving images, immersive technology, and interactive media;
- Measure the success of a range of visualization techniques with respect to their desired messages/meanings;
- Navigate and evaluate the success of contemporary immersive visualizations.

Course materials

Required textbook(s)

Visual Thinking for Design, by Colin Ware. (Burlington, MA: Elsevier, 2008). ISBN #978-0-12-370896-0 (paperback). Available via the University Bookstore.

Required supplemental materials

Sketchbook and black and colored markers or pencils

Optional materials

None

Course technology

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <https://ocio.osu.edu/help/hours>, and support for urgent issues is available 24x7.

- **Self-Service and Chat support:** <http://ocio.osu.edu/selfservice>
- **Phone:** 614-688-HELP (4357)
- **Email:** 8help@osu.edu
- **TDD:** 614-688-8743

Grading and faculty response

Grades

Assignment or category	Points
<p>Assignment 01: Comparative Critique of Published Visuals This assignment requires students to collect at least three different examples of the ways in which information has been visualized. For example, trends in consumer spending or weather forecasts are often represented using different types of combinations of imagery and text. Based on visual communication principles and the quality of matching format with intent, students will be asked to express their evaluation of the effectiveness of various visualizations in writing.</p>	20
<p>Assignment 02: Journal of Visualization Experiments This course will require students to experiment with and practice conventions for visualizing information, data, and processes. These practice attempts will be compiled in a bound document that will be evaluated in terms of the quantity and quality of the experimentation represented.</p>	20
<p>Assignment 03: Storyboarding Exercise Storyboarding, or sketching/depicting the steps or stages necessary to communicate a narrative or message using graphic means, is a basic technique used when composing a visual message. This exercise will require students to complete a storyboard to represent the content of a short time-based expression of an process of their choosing.</p>	20
<p>In-class quizzes or activities (4 @ 10 pts) Quizzes and activities will be incorporated into the course at key points in order to allow students to demonstrate their mastery of key visualization concepts or processes. These will require the critical evaluation of the effectiveness of examples of visualizations and the invocation of key vocabulary.</p>	40
<p>Mid-Term Examination On previous readings, lectures and class discussions.</p>	50

<p>Final Examination</p> <p>Students will be required to demonstrate their level of understanding of course content at the mid-point and the end of the semester by successfully completing an examination that requires them to use vocabulary appropriately, apply key concepts when describing or interpreting examples of visualizations and to create basic visualizations in appropriate formats through the application of strategies presented in the course. The format will be a combination of multiple choice, short answer, and problem-based questions.</p>	<p>50</p>
<p>Total</p>	<p>200</p>

See course schedule, below, for due dates

Late assignments

It is anticipated that all due dates will be met. However, in the event that a student **requests and is granted a deferral of no more than 48 hours** on an assignment, finished work received up to 48 hours after the due date and time will be accepted but will be penalized by the reduction of one-third letter grade (A achieves A-, A- achieves B+, etc.). Assignments or projects received beyond 48 hours after the due date & time will receive a grade of E (0 points) without exception.

Arrangements for deferred submissions can be made for medical or compassionate reasons only. If possible, students seeking deferrals should notify the instructor in advance of the original assignment due date.

Students seeking deferrals must submit medical and/or other documentation to your instructor. Deferred work must be completed by a date and time agreed upon by the student and the professor in order to receive an adjusted grade as described above.

Grading scale

93–100%: A

90–92.9%: A-

87–89.9%: B+

83–86.9%: B

80–82.9%: B-

77–79.9%: C+

73–76.9%: C

70–72.9%: C-

67–69.9%: D+

60–66.9%: D

Below 60%: E

Faculty feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

Grading and feedback

For assignments, you can generally expect feedback within **7-10 days**.

E-mail

I will reply to e-mails within **24 hours on weekdays**.

Attendance and participation

Student participation requirements

The following is a summary of everyone's expected participation:

- **Class meetings: EXPECTED**
Attendance of all class meetings is recommended. Listening to and participating in class meetings is the best and easiest way to ensure your successful performance in this course. The majority of the material included on exams will be presented and discussed during class meetings. These are the best times to speak to instructors and ask questions.
- **Logging in to Carmen site: AT LEAST ONCE PER WEEK**
Be sure to log in to the course in Carmen each week, including weeks with holidays. Lecture guides and illustrations will be posted there after they have been presented and other resources such as some electronic readings will be provided there.
- **Office hours: OPTIONAL**
If you wish to discuss anything related to the course such as an assignment with me, please contact me in person or by email if you need to schedule a time for the meeting outside my scheduled office hours. Meetings during my scheduled office hours are first come, first served.

Communication guidelines

The following are my expectations for how we should communicate as a class: in classroom discussions; in written communication; and in what you write as part of assignments and examinations. Above all, please remember to be respectful and thoughtful.

- **Writing style:** Any written submissions should follow the standard English guidelines for using proper grammar, spelling, and punctuation. Informality (including an occasional emoticon) is fine for non-academic topics.
- **Tone and civility:** In verbal exchanges and in writing, let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.

- **Citing your sources:** In any form of academic submission, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)
- **Backing up your work:** Consider composing anything you submit for this course using a word processor where you can save your work, and then copying into the Carmen drop box for submission.

Course schedule

Week	Dates	Topics, Readings, Assignments, Deadlines
1	Tues Thurs	<p>Course introduction: What is visualization and why does it matter today?</p> <p>Read: Nothing yet</p> <p>Design Knowing: Seeing and Perceiving</p> <p>Read: Ware, pp. 1-41</p>
2	Tues Thurs	<p>Design Basics: 2D, 3D composition principles</p> <p>Read: Ware, pp. 43-62</p> <p>Assignment One distributed (Comparative critique of published visualization example)</p> <p>Design Basics: Color theory basics</p> <p>Read: Ware, pp. 65-75</p>
3	Tues Thurs	<p>Design Basics: Color theory basics</p> <p>Read: Ware, pp. 65-75</p> <p>Visual objects, symbols and grammar</p> <p>Read: Ware, pp. 107-128</p> <p>Quiz 1</p>
4	Tues Thurs	<p>Visual objects, symbols, and grammar</p> <p>Read: Ware, pp. 107-128</p> <p>Typography, Words, Readability</p> <p>Read:</p>

5	Tues Thurs	Modes of production: sketching Read: DUE: Assignment One (Comparative critique of published visualization example) and Assignment Two distributed Modes of visualization production: sketching Read: Quiz 2
6	Tues Thurs	Modes of visualization production: sketching Read: Modes of visualization production: photography Read:
7	Tues Thurs	Modes of visualization production: photography Read: Modes of visualization: collage Read:
8	Tues Thurs	MID-TERM EXAM NO CLASS—Autumn Break
9	Tues Thurs	Modes of visualization: mapping and timelines Read: Modes of visualization: social patterns DUE: Assignment Two (Journal of visualization experiments) and Assignment Three distributed
10	Tues Thurs	Modes of visualization: abstract diagrams Read: Ware, pp. 165-181 Modes of visualization: social networks
11	Tues Thurs	Constructing visual narratives Read: Ware, pp. 87-106 Quiz 3 Storytelling with Data

		Read:
12	Tues Thurs	Storytelling with Data Read: Motion, space and time Read: Ware, pp. 129-146
13	Tues Thurs	Motion, space and time Read: Ware, pp. 129-146 Pattern finding Read: Ware, pp. 165-181 DUE: Assignment Three (Storyboarding Exercise)
14	Tues Thurs	Immersive Visualization Read: NO CLASS—THANKSGIVING
15	Tues Thurs	3D Visualization/Virtual Reality: Visualizing proposed environments and the impact on cultural heritage and preservation 3D Visualization/Virtual Reality: Visualizing psychological experiments and the impact on human subjects
16	Tues	3D Visualization/Virtual Reality: Visualizing molecular structures and the impact on medical research
	Assigned exam time	FINAL EXAM

Other course policies

Performance expectations

- **Quizzes and exams:** You must complete quizzes and the midterm and final exams yourself, without any external help or communication.
- **Written assignments:** Your written assignments should be your own original work. In formal assignments, you should follow a consistent in-text citation style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in--but no one else should revise or rewrite your work. If you have questions about formatting, consult with the GTAs.
- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.
- **Falsifying research or results:** Any research you conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- **Collaboration and informal peer-review:** While study groups and peer-review of written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. There will be times when you are encouraged to talk to one another in small groups and to share ideas. If you're unsure about a particular situation, please feel free just to ask ahead of time.
- **Group projects:** This course does not include a group project.

Academic integrity policy

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

Accessibility accommodations for students with disabilities

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.