Las Positas College
3000 Campus Hill Drive
Livermore, CA 94551-7650
(925) 424-1000
(925) 443-0742 (Fax)

Course Outline for GDDM 51

COLOR THEORY

Effective: Spring 2020

I. CATALOG DESCRIPTION:
GDDM 51 — COLOR THEORY — 3.00 units

A basic-level course highlighting color as an element for communication and expression in all visual fields. Covers key color systems and their relevance to graphic and other visual arts and creative and technical aspects of color.

1.50 Units Lecture 1.50 Units Lab

Grading Methods:
Letter or P/NP

Discipline:
- Art or
- Graphic Arts

	MIN
Lecture Hours:	27.00
Expected Outside of Class Hours:	54.00
Lab Hours:	81.00
Total Hours:	162.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

A. Create aesthetically complete designs and images that demonstrate a working knowledge of:
   1. Color systems and color organization
   2. Principles of color perception - light, vision, and the brain
   3. Value, hue, intensity (chroma), and color temperature
   4. Additive and subtractive color (light and paint)
   5. Relationships between color and composition
   6. Color usage in contemporary art and design

B. Apply color theories as expressed by Itten, Albers, and others, as well as various cultural and idiosyncratic color systems into compositions and be able to use color to convey mood, dimension, and emotion, and implement this knowledge when creating strategies for color use in design projects
C. Make individual aesthetic decisions and judgments related to their own artwork
D. Skillfully use a variety of artistic materials, techniques and tools
E. Independently produce finished color assignments that demonstrate an understanding of color theory and principles in the history of art
F. Comprehend and describe how color is perceived biologically, psychologically, culturally, symbolically and intuitively

V. CONTENT:
A. History of color and the development of the color palette.
B. Color systems and color organization.
C. How color is perceived - light, vision, and the brain.
D. Value, hue, intensity (chroma), and color temperature.
E. Colors, palettes and materials.
F. Additive and subtractive color (light and paint).
G. Color and composition.
H. Identifying and understanding color mixtures.
I. Cultural influences on color usage.
J. Color usage in contemporary art and design.
K. Color and Technology
L. Critical evaluation and critique of class projects.
M. Key color systems and models relevant to graphic and other visual arts
   1. Color perception
      a. The eye functions like a movie camera

b. Rods detect lightness and darkness
c. Cones detect color sensations.
d. The visible spectrum emits vibrating wavelengths.

2. Additive – color system of white light
   a. Primaries: red, green and blue
   b. Secondaries: cyan, magenta and yellow
   c. Pixel depth
   d. Uses: TV, digital imaging, and photographic processes
3. Subtractive—system of mixing color pigments
   a. Primary hues: red, yellow, blue
   b. Secondary hues: green, purple, orange
   c. Tertiary hues: Fall between primary and secondary
4. Analogous hues: found adjacent on the color wheel

N. The Language of color/terminology
1. Hue (color)
2. Saturation (color purity)
3. Chroma (quantity of a color present in a pigment)
4. Value (light and dark)
5. Tint (addition of white)
6. Shade (addition of black)
7. Tone (gray value)
8. Monochrome (single hue with tints, shades or tones)

O. Color theory and application
1. Johannes Itten: Seven color contrasts
   a. Contrast of value, hue, saturation, complements, temperature, extension, simultaneous contrast
2. Josef Albers: Color interaction
   a. Color creates context for itself.
   b. Color environment affects color perception.

P. Psychology of color: Color as message
1. associations: emotional, symbolic, cultural
2. re: gender and age

Q. Designer's perspective and process when designing with color
1. Strategic color choices
   a. Color decisions must support the communication message.
   b. Make each color count.
2. Creative thinking with color
3. Color interaction
4. Reference past and current color trends.
5. Emerging color consciousness worldwide
6. Develop palette strategies.
   a. Color triads can be used to build a color scheme
   b. Color triads can be built from 2 related colors and a complement
   c. Establish a color hierarchy

R. Technical aspects of specifying color; choosing, creating and defining color from a printed fan and directly from design software applications
1. Spot color (solid and process)
2. Solid PMS color
3. Process color (CMYK)
4. Web color (RGB)
5. Tips and tricks of correct color usage in software applications

S. Color spaces and color management issues for web and screen
1. Vector vs. bitmap color and how it appears in a variety of media
2. Web safe palette
3. Translating RGB to CMYK
4. Cross-platform
5. Calibrations: monitor, scanner, camera

T. Color reproduction and the ecology
1. Overview of ink and paper choices

U. Understanding color use in the visual communications industry
1. Publications,
2. Web sites
3. Other multimedia projects

V. "Checking ego at the door"
1. Select color according to project/client need
2. Temper personal feelings

W. A Guide to presentation, critique or feedback in design
1. Strategy and concept development
   a. What is the purpose of the design?
   b. What information must be communicated?
   c. Does the design meet the objectives?
   d. What is the design concept?
   e. Does the design concept fit the strategy?
2. Design
   a. Did the designer use principles of visual space such as balance, emphasis, rhythm and unity?
   b. Did the designer experiment? Did the designer take a creative leap or produce a competent piece?
   c. What visuals were used and why?
   d. What point of view was expressed, if any?
   e. What creative approaches were employed?
   f. Is the design solution (e.g., design, color, type, style, personality) appropriate for the client's product/service? Can you suggest improvement(s) to the next iteration?
3. Craft
   a. Did the techniques and materials used best represent the design concept?
   b. Is it well-crafted?
   c. It is presented professionally and appropriately?

VI. METHODS OF INSTRUCTION:

A. **Lecture** -
B. **Discussion** -
C. **Demonstration** -

D. **Lab** -
E. Computer lab time with direct instructor and cooperative peer support
F. Student critique sessions
G. Peer-to-peer presentation and discussion of technology techniques
H. Viewing examples of student and professional work

VII. TYPICAL ASSIGNMENTS:

A. Hands-On project: Using the psychology of color
    1. Project objectives:
        a. Work thematically and expressively with a color scheme.
        b. Explore different triad color schemes that communicate a theme.
        c. Work with a palette that offers a variety of color contrasts.
        d. Arrive at the color scheme through a process of researching the subject.
    2. Project criteria and instructions:
        a. Design a color collage composition for one of the four seasons.
        b. Research the season, and create a color palette scheme consisting of a triad and one accent color.
        c. The design should consist of graphic elements that depict the season, and equally important, the mood of the season.
        d. Work with scale changes, economy, and directional changes to enhance the composition.
        e. Establish a visual hierarchy, and use color to create depth.
B. Written and hands-on quiz/project
    1. Define the following terms: Monochrome; Analogous, Complementary, Value in a Word document.
    2. Open the color wheel Illustrator or Photoshop documents available in the class folder on the server.
    3. Create a digital palette for each document, and provide a compositional example that represents each of the following terms: Monochrome, Analogous, Complementary, and Value.
C. Basic design assignments in which the student is required to demonstrate knowledge and skill in the use of the principles of color theory.
D. Assignments in which the student is required to use a variety of color systems and application techniques appropriate to different art historical periods and styles

VIII. EVALUATION:

Methods/Frequency

A. Portfolios
    cumulative body of work due by end of semester
B. Projects
    one mid term and final project
C. Class Participation
    daily
D. Class Work
    weekly
E. Lab Activities
    weekly
F. Other
    1. Written and oral critiques
        a. After every assignment

IX. TYPICAL TEXTS:

1. Pastouread, Michel. *Red: The History of a Color.* 1st ed., Princeton University Press, 2017.
2. Albers, Josef, and Nicholas Weber. *Interaction of Color: 50th Anniversary Edition.* 3rd ed., Yale University Press, 2013.
3. Fraser, Pamela. *How Color Works: Color Theory in the Twenty-First Century.* 1st ed., Oxford University Press, 2018.
4. Kastan, David, and Stephen Farthing. *On Color.* 1st ed., Yale University Press, 2018.
5. Itten, Johannes. *The Elements of Color.* 1st ed., John Wiley & Sons, 1970.

X. OTHER MATERIALS REQUIRED OF STUDENTS: