

LSC Use Only

Number: _____

Action: _____

Date: _____

UWUCC Use Only

Number: 92-21

Action: App 4/15/93

Date: _____

Senate App 5/4/93

CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

I. Title/Author of Change

Course/Program Title: COLOR THEORY AND APPLICATION

Suggested 20 Character Course Title: _____

Department: CONSUMER SERVICES

Contact Person: CHRISTINE WILSON KESNER

II. If a course, is it being Proposed for:

X

Course Revision/Approval Only

Course Revision/Approval and Liberal Studies Approval

Liberal Studies Approval Only (course previously has been approved by the University Senate)

III. Approvals

Christine Wilson Kesner
Department Curriculum Committee

Donna Sharp De
Department Chairperson

Mary Ann Cessna 12/18/92
College Curriculum Committee

Harold E. Wingard
College Dean *

Director of Liberal Studies
(where applicable)

Provost (where applicable)

*College Dean must consult with Provost before approving curriculum changes. Approval by College Dean indicates that the proposed change is consistent with long range planning documents, that all requests for resources made as part of the proposal can be met, and that the proposal has the support of the university administration.

IV. Timetable

Date Submitted
to LSC: _____

Semester to be
implemented: S'93

Date to be
published
in Catalog:
AY 1993-94

to UWUCC: _____

COURSE SYLLABUS

I. CATALOG DESCRIPTION

CS 205 Color Theory and Application

3 credits

3 lecture hours

0 lab hours

(3c-01-03 sh)

Prerequisite: None

The theoretical basis of color is presented as it relates to the human visual system, light, pigment, perception, and measurement. The application of color theory is discussed in terms of interior design, merchandising, and display.

II. COURSE OBJECTIVES

Upon completion of the course, the student will be able to:

- 1) define basic color terminology
- 2) demonstrate an ability to understand color theory as it relates to:
 - a) the human visual system
 - b) light
 - c) pigments and dyes
 - d) perception
- 3) describe the psychological impact of color (e.g. perception, emotional response)
- 4) specify color using Munsell notation
- 5) identify instruments used to measure color
- 6) apply color theory to design problem solving (e.g. communication, behavior, product enhancement, environmental planning)
- 7) describe current color trends

III. COURSE OUTLINE

A. HISTORY OF COLOR (1.5 sh lecture)

1. Theorists
2. Color and culture
3. Origin of color names

B. COLOR FUNDAMENTALS (3 sh lecture)

1. Terminology
2. Additive & subtractive color theory

- C. COLOR RELATIONSHIPS (3 sh lecture)
 - 1. Tone and image
 - 2. Harmony and contrast
- D. COLOR SCHEMES (3 sh lecture)
 - 1. Color schemes
 - 2. Color scheme characteristics
- E. COLOR AND THE HUMAN VISUAL SYSTEM (3 sh lecture)
 - 1. The human eye
 - 2. Color vision and color vision anomalies
 - 3. The aging eye
- F. COLOR AND LIGHT (6 sh lecture)
 - 1. The electromagnetic spectrum
 - 2. Light sources
 - a. Natural
 - b. Electrical
 - 3. Electrical light source characteristics
 - a. Chromaticity
 - b. Color rendering
 - 4. Metamerism
 - 5. Colored light
 - a. refraction
 - b. filters
- G. COLOR AND PSYCHOPHYSICS (6 sh lecture)
 - 1. Physical factors and passage of light
 - a. Transparent, translucent, and opaque materials
 - b. Reflection, absorption, transmission
 - 2. Physical factors and visual sensation
 - a. Successive contrast
 - b. Simultaneous contrast
 - c. Dazzle
 - d. After image
 - e. Irradiation
- H. COLOR ORGANIZATION (1.5 sh lecture)
 - 1. Munsell System
 - 2. Ostwald System
 - 3. Ives/Brewster/Prang System
 - 4. International Commission on Illumination (CIE)
- I. COLOR SPECIFICATION (2 sh lecture)
 - 1. Munsell notation
 - 2. Pantone
 - 3. Ostwald

- J. **COLOR AND PSYCHOLOGY (3 sh lecture)**
 - 1. Perception
 - 2. Emotional response
 - 3. Behavior
 - 4. Communication
 - 5. Color and personality
 - 6. Preferences
- K. **COLOR MEASUREMENT (1.5 sh lecture)**
 - 1. Rationale
 - 2. Instrumentation
 - 3. Units
- L. **COLOR APPLICATION (7 sh lecture)**
 - 1. Functional color (e.g. Organization, Safety, Health, Mood)
 - 2. Communication
 - 3. Behavior
 - 4. Product enhancement
 - 5. Environmental planning
 - 6. Color and aesthetics
- M. **COLOR TRENDS (1.5 sh lecture)**
 - 1. Influences
 - 2. References

IV. **EVALUATION METHODS**

The final grade for this course will be based on the following items:

- A. **TESTS**
 - 1. Three @ 200 points each
 - 2. Total 600 points
 - 3. 60% of grade
 - 4. Exams consisting of a combination of true/false, multiple choice, and potential matching, completion, short answer essay
- B. **COLOR STUDY ASSIGNMENTS**
 - 1. Six @ 50 points each
 - 2. Total 300 points
 - 3. 30% of grade
- C. **IN-CLASS ACTIVITIES (minimum of three)**
 - 1. Total 50 points
 - 2. 5% of grade

D. UNANNOUNCED QUIZZES

1. Total 50 points
2. 5% of grade

E. FINAL POINT SCALE

A = 900-1000 points	($\geq 90\%$)
B = 800-899	(80-89.9%)
C = 700-799	(70-79.9%)
D = 600-699	(60-69.9%)
F = < 600	(< 60%)

V. REQUIRED TEXTBOOKS, SUPPLEMENTAL BOOKS, AND READINGS

A. REQUIRED TEXTS

1. Sloane, P. (1989). The Visual Nature of Color. New York: Design Press.
2. Kobayashi, S. (1991). Color Image Scale. New York: Harper & Row, Inc.

B. REQUIRED COLOR WHEEL

"Color Computer", Grumbacher #B-420

VI. SPECIAL RESOURCE REQUIREMENTS

None

VII. BIBLIOGRAPHY

- Agoston, G.A. (1987). Color theory and its application in art and design. Berlin (Germany): Springer-Verlag.
- Allen, J. (1986). Designer's guide to color 3. San Francisco, CA: Chronicle Books.
- Anderson, M. Color therapy: The application of color for healing, diagnosis, and well-being. London (UK): Thorsons SF.
- Babbitt, E. (1988). Principles of light and color. New York: Sun Publishing.
- Birren, F. (1986). Color perception in art. West Chester PA: Shiffer Publishing Ltd.
- Birren, F. (1984). Color: A survey in words and pictures. Seacaucus NJ: Citadel Press.
- Birren, F. (1984). Color psychology and color therapy. Secaucus NJ: The Citadel Press.
- Birren, F. (1982). Light, color, and environment. New York: Van Nostrand Reinhold.
- Birren, F. (1987). Principles of color. West Chester PA: Shiffer Publishing Ltd.
- Brill, T.B. (1980). Light: Its interaction with art and antiquities. New York: Plenum Press.
- Brit, L. (1989). Color selling: Using color psychology to increase your sales. New York: Spectran Publishing.
- Brit, L. (1989). Color your business: Understanding a company through its colors. New York: Spectran Publishing.
- Chevreur, M.E. (1980). The principles of harmony and contrast of colors and their applications to the arts. Garland Publishing Inc.
- Chijiwa, H. (1987). Color harmony: A guide to creative color. Rockport MA: Rockport Publishers.
- Colby, B. (1990). Color and light: Influences and impact. New York: Chroma Productions
- Danger, E.P. (1987). The colour handbook: How to use color in commerce and industry. England: Gower Technical Press.
- DeGrandis, L. (1986). Theory and use of color. New York: Harry N. Abrams.
- Eiseman, L. & Herbert, L. (1990). The PANTONE book of color. New York: Harry N. Abrams, Inc.

- Foot, K. Color in public spaces: Toward a communication-based theory of the urban built environment. Chicago: University of Chicago Press.
- Hedgecoe, J. (1989). The art of color photography. New York: Simon and Schuster, Inc.
- Hope, A. & Walch, M. (1989). The color compendium. New York: Van Nostrand Reinhold.
- Illuminating Engineering Society of North America (IES). (1984). Lighting handbook-reference volume. New York: IES.
- IES. (1987). Lighting handbook-application volume. New York: IES.
- Jackson, C. & Lulow, K. (1987). Color for men. New York: Ballantine.
- Kobayashi, S. (1984). A book of colors. New York: Kodansha International, Nippon Color & Design Research Institute, Inc.
- Ladau, R.F., Smith, B.K., & Place, J. (1988). Color in interior design and architecture. New York: Van Nostrand Reinhold.
- Linton, H. (1990). Color consulting: A survey of international color design. Florence KY: Van Nostrand Reinhold.
- Mahnke, F.H. & Mahnke, R.H. (1987). Color and light in man-made environments. New York: Van Nostrand Reinhold Co., Inc.
- Munsell, A.H. (1988). A color notation (5th ed.). Baltimore: Macbeth.
- Nassau, K. (1983). The physics and chemistry of color. New York: John Wiley & Sons.
- Neal, H. (1990). Low vision. New York: Simon and Schuster, Inc.
- Olsen & Harris (1988). Color vision deficiency and color blindness. New York: Fern Ridge Printers.
- Parramon, J.M. (1989). Color theory. New York: Watson-Guptill.
- Pegler, M.M. (ed.) (1989). Successful food merchandising and display. NY: Retail Reporting Corp.
- Powell, W.F. (1989). Color and how to use it. New York: W. Foster Publishers.
- Quiller, S. (1989). Color choices. New York: Watson-Guptill.
- Rossotti, H. (1983). Colour: Why the World Isn't Grey. Princeton, NJ: Princeton University Press.
- Sloane, P. (1989). The visual nature of color. New York: Design Press.

- Stockton, J. (1983). Designer's guide to color. San Francisco, CA: Chronicle Books.
- Stockton, J. (1984). Designer's guide to color 2. San Francisco, CA: Chronicle Books.
- Varney, C. (1985). Color magic. NY: E.P. Dutton, Inc.
- Williamson, S.J. (1983). Light and color in nature and art. New York: John Wiley & Sons, Inc.

HISTORICAL REFERENCES
(1979 or earlier)

- Albers, J. (1975). Interaction of color. Westford, MA: Murray Printing Co.
- Birren, F. (1978). Color and human response. New York: Van Nostrand Reinhold.
- Bouma, P.J. (1971). Physical aspects of colour. Eindhoven (The Netherlands): Philips.
- Burris-Meyer, E. (1938). Historical color guide. Helburn.
- Evans, R.M. (1959). An introduction to color. New York: John Wiley.
- General Electric. (1978). Light and color. Nela Park, Cleveland: General Electric.
- Gerritsen, F.J. (1974). Theory and practice of color. Cincinnati OH: Van Nostrand Reinhold.
- Goethe, J.W. (1840). Theory of colours. Cambridge MA: The M.I.T. Press.
- Judd, D.B. & Wyszecki, G. (1975). Color in business, science, and industry. New York: John Wiley & Sons.
- Kargene, A. (1979). Color and personality. New York: Weiser.
- Libby, W.C. (1974). Color and the structural sense. Englewood Cliffs NJ: Prentice-Hall, Inc.
- Optical Society of America, Committee of Colorimetry. (1953). The science of color. New York: Crowell.
- Ostwald, W. (1933). Color science. London: Winsor & Newton.
- Sargent, W. (1964). The enjoyment and use of color. New York: Dover Publications, Inc.
- Sharpe, D. (1974). The psychology of color and design. Nelson-Hall Co.
- Sheppard, J.J., Jr. (1968). Human color perception: A critical study of the experimental foundation. New York: American Elsevier Pub. Co.

CS 2-- COLOR THEORY AND APPLICATION

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Wright, W.D. (1969). The measurement of colour. New York: Van Nostrand Reinhold.

TRADE PUBLICATIONS

Advertising Age
 Architectural Lighting
 Architecture
 Chain Store Age
 Color Research and Application
 Designers West
 Home Furnishings Daily
 Interior Design
 Interiors
 Lighting Design + Application (LD + A)
 Progressive Architecture
 Restaurant and Hotel Design
 Restaurant Interiors
 Visual Merchandising and Store Design
 Women's Wear Daily

COURSE ANALYSIS QUESTIONNAIRE

SECTION A. DETAILS OF THE COURSE

- A1. This course will be a free elective for students in the Consumer Services Department (the Human Development and Environmental Studies Department effective Fall 1993). The course is not intended for inclusion in the Liberal Studies program.
- A2. This course does not require changes in the content of any existing courses.
- A3. This course will be offered in lecture format.
- A4. This course has been offered as a Special Topic, called Color Theory and Application, during Fall 1991 and Spring 1992 semesters. It will also be offered Fall 1992.
- A5. This course is not intended to be dual level.
- A6. This course is not to be taken for variable credit.
- A7. Similar courses are offered at these institutions:

FASHION INSTITUTE OF TECHNOLOGY

SC 332 Color and Light (3 sh)

Presents the physical phenomena associated with color and light. Topics such as the wave-particle duality nature of light, the behavior of light, photometry, and colorimetry

are studied. Optical effects in art and the science of holography are treated as natural outgrowths of the previous topics.

SD 112 Textile Color Fundamentals (2 sh)

General theory of color analysis of specific systems and their relations to woven, knitted, and printed fabrics. Includes color notations, terminology, and coordination in fashion and home furnishing fabrics.

KENDALL SCHOOL OF DESIGN

FN 112 Color - Visual Communications (3 sh)

Examines the principles, history, terminology and concepts of color and their effective application. Emphasizes the additive and subtractive study of color. Pigment is converted to the appearance of light using the elements of hue, saturation, value, reflection, absorption, and contrast. Explore expressive effects, techniques, and color schemes as they relate to the emotional nature and impact of color.

LAROCHE COLLEGE

ID 122 Color and Design (3 sh)

The study of basic color theory and the application of color to two and three dimensional design problems as related to interior design.

LOUISIANA STATE UNIVERSITY

ID 2770 Color and Illumination (3 sh)

Nature, theory, and art of color and light applied to two and three dimensional basic design projects.

- A8. The accrediting body of Interior Design programs, the Foundation for Interior Design Education Research (FIDER), requires that interior design majors have an understanding of color.

SECTION B. INTERDISCIPLINARY IMPLICATIONS

- B1. This course will be taught by one instructor.
- B2. This course will have no pre-requisites.
- B3. This course provides an understanding of color theory and application as it relates to interior design, fashion merchandising, and display. It does not overlap with any courses at the University.
- B4. Seats in this course will be available in the School of Continuing Education.

SECTION C. IMPLEMENTATION

- C1. Resources
 - a. No new faculty are needed to teach this course.
 - b. Current space allocations are adequate.
 - c. No new equipment is needed to teach this course.
 - d. Supplies are sufficient for this course.
 - e. Library holdings should be adequate. However, holdings and audio-visuals should be periodically updated to keep pace with new technology and changing trends.
 - f. Travel funds are not needed to teach this course.
- C2. No grant funds are associated with this course.
- C3. This course will be offered once each semester.
- C4. One section of the course will be offered at a time.
- C5. Eighteen students will be accommodated in this course.
- C6. FIDER requires that Interior Design majors have an understanding (as compared with "awareness" or "competency") of color theory.
- C7. This course will be a free elective. It does not change the 124 credit program of students in the department.

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NEWMAIL

From: GROVE::ZEXPAWN "Janice_Parker"
To: HAL_WINGARD
CC: ZEXPAWN
Subj: Curriculum Committee Proposal

Consumer Services sent over a course revision for CS 205 - Color Theory and Application. I need to know from you "Are any new resources required for this change?"

E-mail response would be great. I assume committee will begin review of this next week.

Thanks!

*No additional resources
H. E. Wingard
1-15-93*