

ATPT-1630: COLOR MIXING AND MATCHING

Cuyahoga Community College

Viewing: ATPT-1630 : Color Mixing and Matching

Board of Trustees:

September 2025

Academic Term:

Fall 2025

Subject Code

ATPT - Appld Indus Tech - Painting

Course Number:

1630

Title:

Color Mixing and Matching

Catalog Description:

Instruction in color mixing and matching, including color terminology and theory, lighting and surface effects of color, use of light boxes and viewing aids, and sequence and techniques of color mixing and matching.

Credit Hour(s):

2

Lecture Hour(s):

2

Requisites

Prerequisite and Corequisite

Admissions to Painting Technology apprenticeship program, or departmental approval.

Outcomes

Course Outcome(s):

N/A

Objective(s):

1. Identify primary, secondary, and tertiary colors, the color wheel, characteristics and terminology associated with color usage.
2. Demonstrate the use of light boxes and viewing aids.
3. Explain basic color theory, the psychological effects of color, lighting and surface effects of color appearance.
4. Demonstrate the proper sequence and techniques of color mixing and matching.

Methods of Evaluation:

1. Quizzes
2. Exams
3. Classroom participation
4. Demonstration of assigned projects

Course Content Outline:

1. Color-Its nature and effect
 - a. Defining color
 - i. light, vision, and color
 - ii. terminology
 - b. Psychology of color usage

- i. psychological reactions to color
- ii. optical illusions
- iii. reasons for color preferences
- iv. colors and symbols
- c. Lighting effects on color appearance
 - i. colors, light, and surface conditions
 - ii. natural and artificial lighting
 - iii. light boxes and viewing aids
- 2. Characteristics and relationships of colors
 - a. Characteristics of colors
 - i. hue, value, and chroma
 - ii. tint, shade, and tone
 - b. Color theory
 - i. primary colors
 - ii. secondary colors
 - iii. tertiary colors
 - c. The color wheel
 - i. primary, secondary, and intermediate colors
 - ii. complementary color painting schemes
 - iii. monochromatic and analogous color painting schemes
- 3. Preparation of colors
 - a. Color mixing materials and equipment
 - i. coloring agents and materials
 - ii. characteristics of paint pigments
 - iii. tools and equipment for mixing and matching
 - b. Color matching procedures
 - i. techniques of preparing a paint color match
 - ii. conditions for best mixing and matching results
 - c. Color mixing and matching schedules
 - i. proper sequence of color mixing and matching
 - ii. procedures to prepare tints, shades, and tones
 - iii. color mixing and matching

The Course Schedule is subject to change due to pedagogical needs, instructor discretion, parts of term, and unexpected events.

Resources for the Instructor

Brushwell, William ed. *Painting and Decorating Encyclopedia*. 5th Edition. South Holland: Goodheart-Willcox Co. (Latest edition), 1982.

National Painting, Decorating and Drywall Apprenticeship and Manpower Training Fund. *Color Mixing and Matching Instructor's Guide*. (Latest edition). Washington, D.C.: National Painting, Decorating and Drywall Apprenticeship and Manpower Trng Fund, 1976.

Painting and Decorating Contractors of America. *Painting and Decorating Craftsman's Manual and Textbook*. Fairfax, VA: Painting and Decorating Contractors of America, 1995.

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