



Course	Understanding Digital Colour
Lecturer	Dr. David Briggs
Duration	Eight evenings 6.30 – 8.30pm
Dates	Wednesday: April 21 to June 9
Fee	\$495
Venue	Billy Blue College of Design, 171 Pacific Highway, North Sydney

Course Outline

This is an intensive, in-depth approach to colour theory and its practical application in the digital environment, drawing on modern advances in scientific understanding of colour. Learn how colour really works, and discover how to solve colour problems by thinking in terms of 3D colour spaces of various kinds.

Who should attend

This course is for anyone using digital applications, whether for painting, photography, video, or animation, who has felt the need for a sound factual understanding of colour and for a clear conceptual framework for working with it.

Course outcomes

By the end of the course you will have learnt to:

- visualise colour relationships in terms of various three-dimensional spaces or models,
- solve colour problems by thinking in terms of these spaces,
- apply the full range of options available in the digital environment for choosing and manipulating colour, knowing exactly what these operations do in terms of movement through colour space, and
- understand and apply concepts of the aesthetics of colour relationships derived from throughout art history.



Course content

Part One: How Colour Works

- The dimensions of colour: getting straight the often confused concepts of hue, brightness, lightness, saturation and chroma; visualizing colours as forming three dimensional spaces.
- Basics of colour vision: *Why* are there three primary colours? *Why* do hues form a circle? Understanding the mechanisms of colour perception can give us factual answers to these questions, and help us to cut through a lot of confusion and misinformation about colour.
- Colour mixing: ideal additive and subtractive mixing, and their relationship to actual colour mixing on screen, in print, and in traditional media.
- Optical illusions, what they tell us, and how they can be used by painters and designers; successive contrast, simultaneous contrast, assimilation, and other forms of colour interaction.

Part Two: Working with Colour

Taking Photoshop as our main example, we will examine in depth the many options we have for choosing and modifying image colours in the digital environment. [Most methods of colour manipulation used in other programs are covered somewhere within Photoshop, but some time will be available to look at colour control in other programs as requested by participants].

- Colour naming in digital media: RGB, CMY, CMYK, HSB, HLS, Lab, Hex, and commercial print colour naming systems.
- Colour control in Photoshop: choosing precise colours with the HSB, RGB, Lab and CMYK sliders; modifying colour with various adjustment controls, tools, and over/underpainting in various layer modes and opacities; filters; the effect of different image modes.
- Colour relationships for photo-realistic effects: behaviour of colour in light and shade; painting highly realistic effects of light and atmosphere from the imagination.
- Colour manipulation in traditional media – a taste of how colour behaves in traditional paints will reinforce your conceptual grasp of colour space and colour mixing.
- The aesthetics of colour: some concepts of colour use, colour harmony and colour expression from art history.

Prerequisites

Basic PC or Mac computer skills. Tuition will be tailored to all levels of experience, but all students should obtain at least some exposure to Photoshop before starting the course.

Lecturer's biography

Dr David Briggs is the author of an extensive website on colour for traditional and digital media, *The Dimensions of Colour* (www.huevaluechroma.com). He has given frequent courses in the theory and practice of colour over the last twelve years, primarily at the Julian Ashton Art School, Sydney (1998-), but also at Billy Blue (2008-), the National Art School (2009-), and in industry and interstate. He has lectured at Billy Blue since 2006.



Student exercise, *Understanding Digital Colour*, 2008. The exercise involves analyzing the lighting and atmosphere in a photograph, and then digitally painting in an imaginary object so that it appears to belong.