

## Digital Imaging Output

AR346, MCC Rm 208, Tues. 8 am – 11:50 am

**Digital Imaging Output** introduces participants to fine art digital printing and optimizing images for print or web. This class covers the preparation of files for output to print or web through extensive digital editing and manipulation in both Camera RAW and Adobe Photoshop.

Additionally, choice of paper and inksets, color profiles, calibration procedures, and printing on the Epson 3800 and the wide-format Epson 9900, which prints up to 44" wide, are looked at in depth. The class takes advantage of 16 bit files and their considerably larger color space and tonal spectrum when possible, and offers techniques for printing files of any size or resolution effectively.

The course also aims to help the student gain an appreciation for the fine digital print, and to assist in developing the craft of expressive printing. It also promotes an understanding of the many formal and compositional decisions relative to the interpretation of subject matter and how the aesthetics of digital technology contribute to the communicative qualities of visual imagery.

Learn the particular strengths and techniques of digital-image making. This class focuses on the comprehensive digital workflow from camera capture and scanning, through image editing and manipulation, but with a major emphasis on output to print or web. Both visual expression and the digital craft are emphasized. Participants are expected to produce a portfolio during this semester-long class.

Numerous examples of contemporary digital photography are examined and discussed. Class time is divided between lecture, demonstration, critique and discussion. The course will address theory, technique, and practice. Emphasis will be given to learning digital tools and understanding the evolving potential of visual expression using digital media.

### Theory

- Opportunities and limitations of digital media
- Reviews of contemporary digital work in photography and mixed media
- Understanding pixels; Understanding RGB and CMYK color spaces

- Understanding the relationship between inks and paper, and their expressive possibilities
- Color management and print aesthetics in the digital age.
- The questions of ethics (and the ever-changing legal landscape) of digital media
- Digital tools and interdisciplinary potential

## Technique

- Major focus on output, but since output is affected by the entire digital imaging workflow, the following areas are covered:

- Understanding digital cameras and scanners; resolution, file size, and file formats vs output needs; learning to up and downsample images for particular needs.
- Capture methods: digital cameras, scanners, camera-less photography and downloading
- Use of Adobe Photoshop for image correction/adjustment/enhancement, and manipulation. Color management, color correction, and proofing.
- Gain an appreciation for, and skill in crafting, the expressive digital print
- Learn how to optimize images for the web for multiple platforms and browsers
- Thorough exploration of Epson desktop and wide-format printing.

## Practice

- Personal production of weekly assignments and semester portfolio.
- Print-based portfolio on theme of one's own choosing (approved by instructor).
- Brief written/oral presentation on portfolio intent, contextualizing your work—and its themes—within the contemporary art or photography arena, or within a broader social realm.
- Use of digital camera or scanner – and Epson printers -- for personal production.
- Optimized image conversion to jpg for web-based or CD portfolio.
- Mid-semester review should see substantial portfolio production of images. Leave ample time for PS work, editing, and printing for end-of-semester review.

## Class objectives

To learn the craft of digital output, including fine digital printing, through mastering the imaging workflow, including camera capture and scanning, image correction and enhancement using Adobe Photoshop, color management, paper and ink behaviors and use of Epson printers.

To examine new media in photography from a theoretical and historical point of view, and develop an evolving understanding of how digital tools interact with art, and visual communication.

Expand, reinforce, and solidify concepts through exploring the work of contemporary photographers, weekly assignments and in-class critiques.

Explore the specific aesthetics associated with digital photography including mastering the craft of editing images for enhanced design, color and tone management, expressive inkjet printing, and the use of images for web communication.

The broad goal of this course is to create a foundation of theoretical and practical knowledge that will give students the means to employ digital tools in their photographic or mixed-media work – and the experiential awareness to stay abreast of the rapidly changing technologies and evolving aesthetic considerations.

## **Resources**

### **Art Department, Design Lab – Room 210**

(1) Epson 9900 wide format printer – ultrachrome inks, 44" wide

(1) Epson 3800 printer – K3 ultrachrome inks, 17" wide

(1) Epson V750 Scanner for negatives and prints. Ideal for prints, medium and large format negatives, not 35mm.

(1) Nikon 4000 transparency scanner, 35mm only, 4000 dpi

10 megapixel SLR Canon cameras available for check-out through Eric Holden

Hours to be posted for both labs. Design and photo students will have access to additional departmental equipment – digital cameras and scanners.

## **Supply List**

Access to scanner or digital camera and memory cards. Recommend minimum 1 gig cards and adjustable camera, preferably able to capture Camera RAW images.

Ink-jet paper and inks are supplied with printers for a fee that covers consumables. Additional ink-jet papers beyond what is supplied in the labs is the responsibility of the class participant.

Approximately 15-20 blank CD's for weekly assignments and for image storage.

External hard drive for hi-res large image storage if your work is large in size or extremely high resolution. Recommend drives made by OWC or La Cie.

Adobe Photoshop (version CS or above). Must support 16 bit workflow. Or Adobe Photoshop Elements 3.0. Must support 16 bit workflow. For PC or Mac.

## **Weekly syllabus**

Note: WEEKLY CONTENT IS APPROXIMATE, and will be affected by the overall motivation of participants, equipment and lab availability, the timeliness of work produced, and the comprehension level of participants.

**Week number one:** Class expectations. Equipment resources. Supply needs. Resolution requirements and equipment needs. Review of non-destructive image editing in Photoshop (PS). Review of scanning software and Camera RAW plug-in, accessible through PS. Review of digital camera specifics. Jpg's vs CameraRAW.

Assignment: Capture 3 images in Camera RAW or three images scanned at 16 bit (48 bit color, or 16 bit B&W). Basic tonal and color correction. Basic sharpening. For all assignments, bring to class on CD or USB "Flash" drive.

Note: For all images used as part or parcel of your artistic efforts, or for class exercises beyond the training files that are provided, you must have ownership or demonstrate efforts to gain permission to use images from the copyright holder. If you wish to challenge intellectual property rights as part of your artistic direction – or consciously subvert or push the limits of copyright law in any way -- it is mandatory that you check with the instructor first. The Art Department and Cornish College maintain strict anti-plagiarism policies. Any use of images that

you have not created or are not considered legally "fair-use" or you have not gained permission to use will result in failure of the class.

**Week number two:** Review/exploration of Camera RAW plug-in. Image enhancement and correction tools. Introduction to channels and layer masks. Demonstration of Epson printing software for 3800 and 9900 printers. Assignment: Five additional images selected using the Photoshop file browser from either one full card photographed this week, or ten scans made from images captured this week. Follow-through with complete digital imaging workflow for global tonal and color correction, local controls and image enhancement, retouching, re-sizing if needed, and sharpening. Prepare three files for print.

**Week number three:** Digital printing demonstration. Types of output. Exploration of the expressive print. Paper and ink exploration. Further examination of printing drivers and software. Examination of aesthetic potential of digital ink-jet printing, compared to silver printing, dye printing, and alternative processes. Specific printer controls in Adobe PS. "Soft-proofing" of images. Basic color management.

Assignment: Three expressive digital prints. Size up to 17X22. Due in two weeks.

**Week number four:** Relationships and Dialogues.. Use of Adobe Photoshop to combine multiple images or add interdisciplinary content (i.e text, illustrations, etc.). Up and downsampling images for print or web.

Assignment: Constructed realities. Create two-three multiple images, either diptychs, triptychs, collage, composites, or blend of differing elements (i.e. words, illustrations, etc.).

**Week number five:** Print critique.

Assignment: Due in two weeks. Written "brief" or proposal (two-three pages) due on intent for portfolio project. Brief should include concept, rationale (what questions your work will ask, or what visual challenges will it address), technical means (digital camera, scanner, what type of output?), and to roughly "locate" your work within contemporary artistic practice. Please indicate

what form the final presentation will take: portfolio of digital prints, website, design, multi-media, etc. Be prepared to present project orally. Two to three samples of visual work created for the portfolio.

**Week number six:** Comprehensive color management. Strategies for effective printing of color or B&W images. Digital imaging lecture – review of contemporary artists.

**Week Number seven:** Critique/review of beginning portfolio work. Oral/visual presentations. 1/2 class.

Assignment: Ongoing portfolio work

**Week Number eight:** Critique/review of beginning portfolio work. Oral/visual presentation 1/2 class.

**Week number nine:** Digital Printing techniques. Fine-tuning the digital print. Advanced color correction and tonal enhancements. Critique review of portfolio work. Discussion of potentials of digital image-making for photo, design, multi-media. Samples shown. Ongoing individual portfolio work.

Assignment: Two large prints, minimum 24" wide, on Epson 9900 44" printer.

**Week number ten:** Digital printing enhancements. Critique of large prints.

**Week number eleven:** Ongoing critiques of portfolio work. Final printing techniques examined, demonstrated, and discussed. Review of contemporary digital prints by artists, photographers, and printmakers.

**Week number twelve:** Methods of criticism, response, and analysis of digital images. New directions in photography, contemporary trends in representation and expression using digital methods.

**Week number thirteen:** Critique of ongoing portfolio work. Discussion and response. Exploration of presentation methods: printmaking, web sites, multi-media, interdisciplinary, and presentation methods. Professional practices. Using digital tools for presentation of work. Creation of CD's pdf files, digital resumes, and artists statements. Creation of a digital portfolio. : Review of ongoing portfolio work.

**Week number fourteen:** Critique of ongoing portfolio work.

**Week number fifteen:** Final portfolio review. Hand in CD or web portfolios.

## **Attendance and Grades**

Grades will be based on the following criteria:

- Weekly assignments and completion of assigned readings prior to class meeting
- Final Project (failure to complete the Final Project will result in a grade of NO CREDIT)
- Conceptual development (creativity and problem solving)
- Technical execution
- Craftsmanship appropriate to the nature of the work
- Class participation and involvement
- Presentation (oral communication, written communication, and organization)
- Timeliness & preparedness
- Enthusiasm

Grading Breakdown:

60% final portfolio/class assignments

20% class participation – critique, response, and discussion

15% Artists statement, Written oral presentation of project

5% Innovation, insight, motivation, and instructor's discretion of your overall contributions to the class, the community, or to the medium.

An incomplete grade will only be granted for extenuating circumstances.

## **Classroom Rules**

No cell phones or pagers -- please turn yours off before entering the classroom.

No Food or drinks near workstations

More than two unexcused absences will affect your letter grade. An unexcused absence is when you do not inform the instructor or Art Department office in advance of your absence. Three late arrivals of more than 15 minutes late equals one absence.

## **Written Material: Books and Handouts**

Class handouts will be provided either on hard copy or available as downloads from the instructors website.

### **Recommended books**

\*\* Real World Adobe Photoshop CS4, by David Blatner, Conrad Chavez, Bruce Fraser. Peachpit Press.

Adobe Photoshop. Classroom-in-a-book, Adobe Press

Adobe Photoshop Master Class: John Paul Caponigro, 2nd Edition, Adobe Press

Adobe Photoshop Master Class: Maggie Taylor's Landscape of Dreams, Adobe Press

Real World Camera Raw with Adobe Photoshop CS, Bruce Fraser

Real World Color Management, Bruce Fraser

The Photoshop CS4 Book for Digital Photographers (Voices That Matter)

by Scott Kelby

Photoshop Masking & Compositing (Voices That Matter), by Katrin Eismann

Photoshop Restoration & Retouching, Second Edition by Katrin Eismann

Digital Masters: B&W Printing: Creating the Digital Master Print, by George DeWolfe

Class weblinks will be posted on instructor's website: [www.creativeguide.com](http://www.creativeguide.com)

Go to **Lecture/Workshop** section of website: <http://creativeguide.com/digitalphoto.html>

## **Instructor**

David Ulrich

dulrich@cornish.edu or pacimage@maui.net

[www.creativeguide.com](http://www.creativeguide.com)

808-721-2862