



**GRA 1280c**

## **Introduction to Digital Imaging**

School of Entertainment & Design Technology  
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## **GRA 1280c Introduction to Digital Imaging**

Course handout prepared by David W. Smith

This course will introduce the Graphics students to digital imaging and the practice of tone reproduction in black and white and color. Students will learn about enlarging, reducing, printing, copying, and scaling artwork and photographs. This course will introduce students to the hardware and software necessary to produce digital artwork and photos to industry standards. Students will learn about digital photography with the aid of digital cameras, and scanners. Students will also be introduced to the use of digital video cameras, capture and video editing software with iMovie. Creative aspects of digital imaging will also be covered. It is recommended for degree students in the first year, second semester. Special Fee [2 hr. Lecture, 2 hr. Lab= 6 Clock hrs. (96 college hrs. Total)] (Minimum 81.6 Hrs.)

### **COMPETENCIES**

1. Students will learn the tools and menus of Adobe Photoshop.
2. Prepare digital imaging equipment such as scanners and digital cameras for use with image capture applications such as Adobe Photoshop, Imageready and iMovie.
3. Use printer's measurements to compute inches and fractions, points and picas, decimals, percentages and proportions for the scaling of digital images.
4. Define technical terms relating to digital images, tone reproduction, and scanning.
5. Solve scaling, resolution and output problems to within one sixteenth of an inch.
6. Students will apply production techniques to digital images such as color settings.
7. Differentiate among the various types of scanners and digital cameras to determine suitability for output according to output resolution formula.
8. Identify the equipment, software and proofing materials used in the scanning and output of line art and grayscale halftones.
9. Demonstrate how to calculate scaling and resolution for line art, grayscale and color photographs to SWOP publication standards.
10. Students will demonstrate how to use Colorsync to set up their color settings to proofing industry SWOP publication standards.
11. Students will learn the basic requirements of ICC profiles with Adobe Photoshop as it pertains to image acquisition and output of black and white and color images.
12. Students will demonstrate how to correct photographic defects, perform color correction and color retouch digital images.
13. Students will demonstrate the relationship of different scanning interfaces to image quality and scanner types.
14. Students will demonstrate the classification of original image types for line and halftone copy by tone and reproduction characteristics.
15. Students will prepare computer scanning workstations and equipment for operation.
16. Students will demonstrate how to evaluate proofs to production standards.
18. Demonstrate how to correct and retouch digital images in black and white and grayscale.
19. Students will demonstrate how to prepare, shoot, download, manipulate and print images from digital cameras.
20. Demonstrate the use of special effects techniques with digital images.
21. Students will demonstrate how to scan line and halftone copy to be imported into page layout programs such as QuarkXpress.
22. Students will use digital video cameras to shoot, capture and edit in iMovie.

## **TEXTBOOK**

Required: Visual Quick Start Guide to Photoshop CS By Weinman and Lourekas from Peach Pit Press ISBN 0-321-21353-X.

## **SUPPLIES**

The following supplies will be required for this course:

1. One loose-leaf binder.
2. Loose-leaf filler paper.
3. Ball point pens.
4. Student supplied black and white or color photographs.
5. Layout paper, 20 lb., 8 1/2-by-11 inches, 25 sheets,
6. One plastic type gauge with picas and inches, such as C-Thru GA-96 or a clear 12" ruler.
7. Two 100 MB Zip Disks.

## **CLASS ATTENDANCE GRADE**

Students are expected to attend every class regularly and to arrive on time for each class. Excessive absences and tardiness will affect the student's final grade average. It is the student's responsibility to make up class work and notes when absent or late for class. The attendance grade will be 15% of the student's final grade.

## **QUIZ GRADES**

Quizzes will be given on a regular basis. If you do not take the quiz on the assigned date, you will be given a make-up quiz and will lose 10 percent of your grade. If you are absent and excused, you will be given a make-up quiz but will not lose 10 percent of your grade. The quiz and project grades will constitute 85% of your final grade depending on whether a final exam is given.

## **PROJECT GRADES**

Projects will have an assigned due date to be completed. If they are not handed in on time they will lose one letter grade. The projects will be graded on their neatness, completeness and accuracy of following instructions, and how well you completed the project objectives.

## **FINAL EXAM**

The final exam will be given on the assigned date. If you do not take the final exam on the required date you must make special arrangements with the instructor to take a makeup final exam if you are not excused due to illness you will lose 20 percent of the Final Exam grade. Final Exam grade may constitute 15 percent of your grade. GRA 1280C is a four-credit course which meets 84.8 hours during the semester. Enough time is scheduled to complete the assigned projects during the regular hours of the course.

## **GRADING SCALE**

The grading scale for all elements of this course is as follows:

A = 100 - 93

B = 92 - 84

C = 83 - 70

D = 69 - 62

F = below 62.

## **SAFETY**

Please observe the following safety guidelines:

1. Note evacuation routes and procedures posted by doors inside the lab.

2. A fire alarm consists of a triple horn/buzzer effect.

When you hear the fire alarm please exit orderly and quickly.

3. Please enter and exit only through designated doorways. All other entrances are emergency exits only and an alarm will sound if they are opened.

4. Never eat, drink, or smoke in the lab.

5. Never touch any cabling without supervision.

6. Never cover the computer's ventilation holes with books, papers, etc.

7. Never expose zip diskettes to extreme temperatures or magnetic fields. Never touch the magnetic media with your hands or hold the disk to the monitor.

8. Do not bring computer games or other programs to the lab. Do not boot the computer with a system diskette or disable the computer's virus checkers.

9. Please be respectful of your fellow students.

## **RESOURCES**

### **PERIODICALS**

1. Electronic Publishing/Computer Artist, monthly magazine.

2. MacWorld, monthly magazine.

3. E-Media, weekly magazine.

4. HOW/Electronic Design, monthly magazines.

5. Print. America's Graphic Design Magazine, monthly magazine.

### **Books**

1. Visual Quick Start Guide, Photoshop CS

By Weinman and Lourekas, Peach Pit Press

2. Real World Photoshop.

by Blatner/Fraser, from Peach Pit Press

3. Photoshop Wow Book,

By Jack Davis, from Peach Pit Press

Do not copy programs or ask instructors  
to copy programs for you.

Computer workstations will be made available  
for the physically challenged.