

# The Art Institute of California

## Course Syllabus

**Course Number:** FS122-G  
**Course Title:** Image Manipulation

**Class Meeting Time:** Thursday, 8–12 (Section G)

**Session/Year:** Summer, 2011

**Instructor Name:** Marty Chappell

**Email Address:** [mchappell@aia.edu](mailto:mchappell@aia.edu) -or- [marty@martychappell.com](mailto:marty@martychappell.com)

**Instructor Availability Outside of Class:** ask instructor for current meeting times/office hours

### Image Manipulation

#### **Course Description:**

Students develop basic image manipulation skills in a raster-based computer environment. Emphasis is placed on mastering the fundamentals of scanning, color management, photo retouching, imaging, special effects and filters and masks.

<b>Course Length:</b>	11 Weeks
<b>Contact Hours:</b>	44 Hours
<b>Lecture:</b>	22 Hours
<b>Lab:</b>	22 Hours
<b>Credit Value:</b>	3 Credits

#### Quarter Credit Hour Definition

A quarter credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

- (1) One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for 10-12 weeks, or the equivalent amount of work over a different amount of time; or
- (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

#### **Course Competencies:**

Upon successful completion of this course, the student should be able to:

*Apply principles of color theory*

- Apply color theory in the scanning, manipulating, and outputting of imagery
- Compare and contrast additive and subtractive color theory
- Identify and define which color theories apply to different input/output devices

*Use and manage computer hardware peripherals for input, output, and storage*

- Operate different kinds of peripheral hardware, including printers, scanners, external drives, and Wacom tablets

*Operate a personal computer using current operating system interfaces*

- Correlate keyboard functions with menu operations

*Use image manipulation software*

- Manipulate layers, channels and paths
- Describe and apply the major steps in the “imaging chain”
- Use a digital camera to capture images for use in a raster-based computer application’
- Produce B&W and/or color illustrations
- Use tools, menus, and keyboard commands to perform complex image selection techniques
- Control image characteristics (size, mode, dpi, etc.)
- Select/apply filters and layers using appropriate menus, tools, and commands
- Prepare imagery for proofing and/or final outputting at a service bureau or other supplier
- Save documents using the appropriate specialized file formats

**Course Prerequisite(s):** FS104 Computer Applications

**Text:** (eBook) *Photoshop CS5 for Windows and Macintosh: Visual QuickStart Guide*

Your required textbook for this course is delivered via electronic format. You do not need to purchase a hardcopy textbook. You will be able to access your eBook via eCompanion (<http://myaicampus.com>) beginning no later than the first day of class. Once you have accessed your eBook via eCompanion, you can then also choose to download the eBook to a personal computer using the Digital Bookshelf software (<http://vitalsource.com/downloads>). Please refer to the Ai Digital Bookshelf Student User Guide, available in eCompanion, for specific instructions.

*To start using your eBook, enter the eCompanion site for this class. Click on the “Digital Textbook” link on the left-side navigation bar. Then, click on the link for the book.*

For support using the Digital Bookshelf, contact Campus Support at 1-866-642-2711 or [campus\\_support@aii.edu](mailto:campus_support@aii.edu). This support group is available Monday thru Saturday, 8:00 AM – 10:00 PM EST.

<b>Additional eBook information is included on the final page of this syllabus.</b>
---

**Recommended Readings:**

- *The Adobe Photoshop CS3/CS4 WOW! Book*, by Linnea Dayton and Cristen Gillespie  
Peachpit Press, 2010. ISBN 0321514955.

**Materials and Supplies:** Storage disk, notebook, photo mounting material (as required)

**Estimated Homework Hours:** 4 hours per week

**Technology Needed:** Computer lab with image manipulation software and peripherals

**Grading Scale:**

All assignments must have clear criteria and objectives to meet. All students shall be treated equitably. It will be that student's right to know his/her grade at any reasonable point that information is requested by that student. The criteria for determining a student's grade shall be as follows (on a percentage of total points basis):

A	100-93
A-	92-90
B+	89-87
B	86-83
B-	82-80
C+	79-77
C	76-73
C-	72-70
D+	69-67
D	66-65
F	64 or below

**Process for Evaluation:**

*Your work will be evaluated in terms of your individual progress and efforts to accept challenges and improve your skills.* Ultimately, the best work will receive the best grades. It will be the student's right to know his/her grade at any reasonable point this information is requested by the student.

Assignments and Exercises	+100% of possible points (see list of projects below)
Attendance and Participation	-20% of possible points (see <i>Class Rules &amp; Requirements</i> page)

**Class projects are worth the following percentages:**

Weekly Assignments / Homework	50%
Midterm project	18%
Midterm Exam	7%
Final project	18%
Final Exam	7%
	<hr/>
	100%

**Extra Credit Assignments:** There will be no extra credit assignments; it is quite possible to receive an "A" in this course by meeting all requirements in a creative, careful, & timely manner.

**Student Evaluation/Grading Policies:**

- Class time will be spent in a productive manner.
- Grading will be done on a point system.
- Points for individual activities will be announced.
- All work must be received by the set deadlines.
- On-time projects may be redone with instructor approval.
- ABSOLUTELY NO WORK WILL BE ACCEPTED AFTER THE FINAL CLASS MEETS WEEK 11.**

**Classroom Policy:**

- No food allowed in class or lab at any time. Drinks in re-closeable bottles allowed in classroom.
- If student elects to eat/drink outside class or lab door, missed time is recorded as absent.
- Attendance is taken hourly. Tardiness or absence is recorded in 15-minute increments.
- Break times are scheduled by the instructor at appropriate intervals.
- No private software is to be brought to lab or loaded onto school computers.
- No software games are allowed in lab (unless in course curriculum).
- Headphones are required if listening to music during lab. No headphones are allowed in lecture.
- Any student who has special needs that may affect his or her performance in this class is asked to identify his/her needs to the instructor in private by the end of the first day of class. Any resulting class

performance problems that may arise for those who do not identify their needs will not receive any special grading considerations.

**Disability Policy Statement:**

It is our policy not to discriminate against qualified students with documented disabilities in its educational programs, activities, or services. If you have a disability-related need for adjustments or other accommodations in this class, contact the Disabilities Services Coordinator at 415-276-1060.

**Academic Honesty Policy:**

Students are expected to maintain the highest standards of academic honesty while pursuing their studies at AiCA-SF. Academic dishonesty includes but is not limited to: plagiarism and cheating; misuse of academic resources or facilities; and misuse of computer software, data, equipment or networks.

Student work that appears to violate AiCA-SF's standards of academic honesty will be reviewed by the Committee on Academic Honesty. If the work is judged to have violated standards of academic honesty, appropriate sanctions will be given. Sanctions include but are not limited to course failure and academic termination.

# Weekly Outline

## 1 Selection Tools

### Lecture/Demo:

Introduction to course outline, proposed exercises, and discussion regarding “What is Image Manipulation?”

Overview of the software and procedures most relevant to the class projects, and real-world uses.

Discussion regarding expectations (both instructor’s and student’s) for the class.

Look at samples of image manipulation

Toolbox Overview —Topics to present:

- Zoom & Pan methods (Zoom tool, Hand tool, Navigator, etc.)
- Selection tools (Marquees, Magic Wand, Lassoes)
- Move Tool (layer to layer, document to document)
- Layers (simple intro: copying, linking, hiding/showing)
- Colorizing (simple intro)
- How to duplicate a layer or object
- Saving files: backup of .PSD for student, and as a JPEG to turn in to instructor

**Handouts:** Syllabus, First-Day notes outline, and homework image files (veggie parts).

**Lab: Assignment #1:** work on selection exercise in class: “01\_Veggie Guy” (handout).

**Homework:** finish *Veggie Guy* character collage for next week. **Bring JPEG file to turn in.**

## 2 Scanning and Resolution

### Lecture/Demo:

Terminology #1, “Pixels, Vectors, Resolution” (will be covered on Midterm exam—open notes)

Scanning: *How To*—

Topics to present: input resolution, Moiré patterns and de-screening, RGB & Grayscale, photos/halftones/line art originals, *Optical* resolution vs. *Interpolated* resolution, changing Image Size in Photoshop, output resolution for print & screen, etc.

Selections and Masks—continued from 1<sup>st</sup> week.

**Lab: Assignment #2:** work on selection exercise in class: “02\_Foreground/Background” (handout).

**Homework:** Composite foreground and background elements; 2 finished JPEGs. Due next week.

## 3 Layers

### Lecture/Demo:

Terminology #2, “Selections, Masks, Data Storage” (will be covered on Midterm exam—open notes)

Working with Layers—topics to present: copying layers, linking, layer masks, adjustment layers, alpha channels, saving selections (as alpha channels), painting on a layer mask to manipulate transparency, layer opacity, blending modes, flattening layers, merging layers, re-stacking layer order, etc.

**Midterm Project intro: “Metamorphosis”**—imaginary creature combining human, machine, plant, & animal. (Specific requirements will be in a printed handout). **Project due: Week 5**

**Lab: Assignment #3:** work on layer exercise in class: “03\_Masking & Layer Adjustments” (handout).

**Homework:** Finish layers project, & save as a JPEG. Due next week.

## 4 Color

### Lecture/Demo:

Terminology #3, “Color” (will be covered on Midterm exam—open notes)

Working with Color—topics to present: Color modes, Color gamuts, Channels and bit depth, Converting between color modes, Bitmap & Indexed modes, Basic steps for correcting images (Adjust > Color Balance, Hue/Saturation, etc.), Using the color adjustment tools, Identifying out-of-gamut colors, Using the Levels dialog box, Using the Curves dialog box, About the color wheel / color sliders, Making quick overall adjustments to an image: (Brightness/Contrast, Auto Levels, Auto Contrast, and Variations), Applying special color effects to images –(Desaturate, Invert, Equalize, Threshold, Posterize, Gradient Map), etc.

Mounting demo—printing, matte board, positioning, adhesive.

**Lab:** work on **Midterm Project: “Metamorphosis”**—imaginary creature combining human, machine, plant, & animal. **Project due: Week 5**

**Homework:** finish and mount midterm project for presentation. Due next week.

## 5 Midterm projects, and Brushes/Painting

**Due: Midterm Project:** “*Metamorphosis*”—imaginary creature combining human, machine, plant, & animal. Presentation to class of “*Metamorphosis*” creations

### Midterm Exam

### Lecture/Demo:

Painting, Drawing, and Editing—topics to present: Using the painting tools (presets, & Brushes Palette), Erasing, Setting options for painting and editing tools, Using the gradient tools, Using the paint bucket tool, Filling and stroking selections and layers, Choosing foreground and background colors, Using color pickers & eyedropper tool.

**Lab: Assignment #4:** Painting, Drawing, & Colorizing: combining grayscale and color images.

**Homework:** Finish **two** images for the colorizing project & save each as JPEGs

Midterm evaluations, one-on-one (time permitting)

## 6 Transformation & Retouching

### Lecture/Demo:

Using a digital camera; shooting and downloading images of students in class

Transforming and Retouching—topics to present: Cropping images

Changing the size of the work canvas

Using the Liquify command

Transforming objects in two dimensions

Retouching with a sample of an image

Using the clone stamp tool

Using the other retouching tools –blur/sharpen/smudge, burn/dodge/sponge

**Lab: Assignment #5:** work on Transforming and Retouching exercise (student face photos)

**Homework:** Finish **two** different face rework/retouches, & save as JPEGs

## 7 Vector Paths, Web Optimization

### Lecture/Demo:

Vector shapes • Drawing with the Pen Tool • Clipping paths

### Topics to present:

- Drawing shapes and paths
- Using the shape tools
- Using the Pen Tools
- Using the Paths palette
- Editing paths
- Managing paths
- Converting paths into selections
- Adding color to paths
- Clipping Paths

Optimizing Images for Web—

- About optimization
- Saving optimized images
- Viewing images during optimization
- Choosing a file format for optimization

**Lab: Assignment #6:** work on Drawing, and Editing exercise (Pen Tool paths).

**Homework:** Finish path exercises: see homework handout. Due next week.

## 8 Type, and Layer Styles

Type, and Layer Effects— topics to present:

- About type
- Creating type
- Working with type layers
- Formatting characters
- Formatting paragraphs
- Layer Effects for text
- Rasterizing Type: for painting or filters
- rotating vertical characters
- Type selection border > Fill, Stroke, Paste Into
- Warping text (vector type)

**Lab: Assignment #7:** work on Type, and Layer Effects exercise.

**Homework:** Finish 3 text (word) examples, & save as JPEGs.

## 9 Filters, + intro to Final Project

### Lecture/Demo:

Filters, and Special Effects— topics to present:

- Using filters
- Noise filters
- Tips for creating special effects
- Choosing a filter effect
- Artistic filters
- Blur filters
- Texture filters
- Distort filters
- blending filter effects (Edit > Fade)
- Lens Flare
- Lighting Effects filter
- Pixelate filters
- Brush Stroke filters
- Sharpen filters – Unsharp Mask and Smart Sharpen

\* Introduction & handout for Final Project “*Visual Storytelling*” (due final week).

**Lab: Assignment #8:** work on Filters and Special Effects exercise

**Homework:** Finish 3 filter examples (2 “synthetic” and 1 “photographic”), & save as JPEGs

**ALSO:** We’ll begin working on assembling the Final Project in class *next time we meet* (week 10) — during studio time. Bring text & images you’d like to use for your project.

## **10 Final Project: studio day**

**Lecture/Demo:** Techniques and considerations for creating a visually compelling image for the Final Project.

**Lab: Work on Final Project:** *“Visual Storytelling”*

**Assignment (FINAL):** *“Visual Storytelling”* (due final week)

## **11 Final Day**

**Lecture/Demo:**

Presentation of Final Projects, printed & mounted (see project handout sheet for specific requirements).

**Final Exam** open book / open notes / open internet resources

**Lab:**

**Due: Final project:** *“Visual Storytelling”*

**Presentations of projects to class / Critique & Response**

---

**Schedule subject to change based on class need. Please contact the instructor and other classmates when absent to confirm assignments.**

## **Class Rules & Requirements: (read the fine print...)**

Attendance is mandatory; commit to being in class every session, on time.

Instructor attendance policy (following AiCA-SF guidelines): Our class meets for a total of 44 hours. Both you and I are expected to be present for all these hours. A class is made up of the people who are actually there participating. The more you are present, the higher your grade. **1 percent will be deducted from your average score for each full hour you are not in class, up to a maximum of 30% of your grade (1 pt. x 30 hrs.). Perfect attendance earns 2 extra percentage points.**

By school policy, there are no excused absences.

### **Attendance:**

8 hrs or less of missed class time, and you get a 4 hr. 'discount'. More than 8 hrs. missed, and *all* missing attendance will count off (no discount). Here's some **examples:**

- 1) 85% avg. minus 4 hrs. missed = 85% (B) (minus 0 pts.)
- 2) 85% avg. minus 8 hrs. missed = 81% (B-) (minus 4 pts.)
- 3) 85% avg. minus 8.25 hrs. missed = 76.75% (C) (minus 8.25 pts.)

Perfect attendance earns 2 extra grade points (for example: the final grade would change from 85 to 87).

All assignments should be finished on time in order to progress smoothly. *Assignments turned in late will be lowered one whole grade (10 points) for each class meeting day they are late.* **Assignments more than one week late will not be accepted.**

There will be a critique of assignments at the beginning of many class sessions. You are expected to participate openly and freely in the critique. Mistakes are welcome; lack of participation is not. **If you are late for class, your assignment will not be included in the critique—as if it were not submitted on time.** This will lower your grade by 10%—the same as being a week late.

There will be two projects during the quarter that will require printing & mounting for presentation: The **midterm** (week 5) and the **final** (week 11). These two projects will only be accepted for grading after they are printed, mounted and presented in class.

Any project can be reworked for a higher grade, as long as the original due date is met. Projects being redone must be submitted within one week from the original due date. If you aren't in class on the day the project is due, you can email me the finished artwork as an attachment ([marty@martychappell.com](mailto:marty@martychappell.com)) by due date. Large Photoshop files (greater than 6 MB) should be saved as compressed JPEGs before emailing (please don't email a file larger than 6 MB).

Finished work must demonstrate an understanding of the techniques covered in this class and specified in the assignment.

Students are expected to utilize the techniques covered in lectures and demonstrations, participate in class discussions by sharing opinions, information and experiences, use studio time for Image Manipulation projects, give feedback to other students, and be open to new ideas.

Demonstration of respect for others work and opinions is of utmost importance.

**Plagiarism statement:** Plagiarism can be defined as presenting someone else's work as your own. Students found plagiarizing will fail the assignment and may fail the course.

## How to Access Your eBook

The required textbook for this class is delivered electronically and is covered in a "Digital Resource Fee" already billed to your account.

### To access your digital textbook

- Login to your My Ai Campus portal account ([www.myaicampus.com](http://www.myaicampus.com))
- Click the RED "Go to my campus classes" button to access your eCompanion account
- Enter the eCompanion classroom
- Click on the "Digital Textbook" link on the left-side navigation bar
- Create your Ai Digital Bookshelf account using your email address and password
- After doing this, you will arrive at your eBook

### To download your textbook

- You will need to download the Ai Digital Bookshelf application to your computer in order to do so. *You can only download the software to a personal computer.*
- Go to: <http://vitalsource.com/downloads>
- Once there, use the radio button to choose your platform, and click the eBook icon to download the Bookshelf application.
- If you remain in the class after add/drop, you can update your license to receive the full version of the book (accessible for up to 5 years)

### Resources available to you

- Ai Digital Bookshelf Student User Guide – link can be found on the bottom portion of the page when you click on Digital Textbook
- Tutorial about creating your account and using the eBook tools
- Student Support phone number: **1-866-642-2711**
- Student Support email address: [campus\\_support@aai.edu](mailto:campus_support@aai.edu)