

## Morning Session Day 1

### Session Start<sup>1</sup>

- Introductions
  - Instructor intro
  - Attendee introductions
    - Why are you here?
    - What do you hope to learn?
    - Do you have any special needs?
  
- Housekeeping
  - Using the syllabus as a guide
  - Rules for interruptions (cell phones verboten)
  - How to use the handouts and presentation materials
  - Note taking - - there will be a test at the day's conclusion
  
- Review course objectives
  - Course goals
  - Overview of the day

### Color Identification

- What color is this? (*Hands-on #1*)
  - Write color description and pass forward
  - Shuffle descriptions and pass out
  - Use description to identify color
  
- How do people try to correct color in the real world
  - Roundtable slides
  - At the paint store
  - In the press room
  
- Why do I respond to color the way I do?
  - Inherited, learned, geographical factors, etc.
  
- Does my eye have limitations?
  - Retinal fatigue
  - Color memory
  - Background effects

## Color Theory Workshop

- One artists solution – Munsell
  - Munsell’s color description (words)
  - Let’s play Munsell (*Hands-on #2*)

### Morning Break

#### Color Definition – What is Color?

- Light
  - Spectrum & speed
  - Different lights = different energy
  - Illuminants
- Object
  - Why is red, red?
  - Objects are reflectors
- What is metamerism (*Hands-on #3*)
- Observer
  - How does the eye work
  - Rods & cones
  - How about an instrument?
- Color models
  - Additive -demonstrate with lights (*Hands-on #4*)
  - Subtractive -demonstrate with finger paint

### Lunch on your own

### Class Reconvenes In One Hour!

## Afternoon Session Day 1

### Color Control

- Density
  - What is it?
  - How do I use it?
  
- L\*a\*b\*
  - What is it?
  - How do I use it?
  
- L\*C\*h°
  - What is it?
  - How do I use it?
  
- Instrumental measurement (*Hands-on #5*)
  - Measure density (no difference)
  - Visual assessment (big difference)
  - Measure color L\*a\*b\* (big difference)
  
- Which method is best?
  - MacAdam's ellipsoids
  - Introduce CMC
  - Introduce CIE94
  - The eye vs. L\*a\*b\*, L\*C\*h°, CMC, CIE94
  - Screen grab of each tolerance

### Afternoon Break

### Color Management

- The artists creation
  - Follow the color from creation to completion ...
- Ends in production
  - Vehicle paint
  - Interior plastic
  - Interior fabric/leather
  - Printed displays
  - Printed advertisement
- Measured how?
  - Different instruments, different answers (*Hands-on #6*)
    - Compare readings from hands-on #5
    - Different instruments, different ill/obs, different results
- Measure vs. the eye
  - Limitations of the eye

### Color Manufacturing

- Why doesn't it match?
  - Process variation
  - Raw materials
- Application methods
  - Real world situations
- Customers issues
- Wrap up and test/review

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<sup>1</sup> Instruments should be set up before class with a variety of ill/obs settings.