Camera

- Must know beyond point and shoot
- Performance characteristics
- Some technical understanding
zoom ratio

- 10 x 15
- 10:1 Zoom ratio
- 15 mm at wide angle
Exposure

- Image looks natural and/or appropriate
- Consistent between scenes
- Overexposed
  - Too bright, loss of detail in bright areas
- Underexposed
  - Too dark, loss of detail in dark areas
  - Washed out, noisy
Exposure

- Zebra Striping
  - Zebras at 100 units
    - 100 IRE units
    - Loss of detail in zebra areas
    - Can be used for consistency across scenes
    - Can have zebra-ing in the picture
  - Zebras at 70 units
    - Average caucasian skin tone
    - Adjustable (menu item)
Exposure

- Auto Iris
  - Useful to SET exposure
  - Return to manual
  - Use momentary button

- Experiment
  - Make test
  - Bracket
  - compare
Macro

- minimum focus distance (2 feet ?)
- shoot close
- lens becomes a fixed focal length lens.
Iris opening
- size of opening--amount of light
- f/1.2 to f/22.

The lower the number, the larger the aperture.
- 1 stop doubles or halves light
- F-stop = lens focal length (mm)/aperture (mm)
Depth of Field

- Depth of Field
- The area in which objects are seen in focus.
- Shallow
- Deep
Depth of Field Factors

- Focal length
  - Telephoto--shallow
  - Wide angle--deep

- Iris opening
  - Small #--shallow
  - Large #--deep

- Distance
  - Greater distance--deeper
Performance Characteristics of the Lens

- Every lens makes images look a different way
- know the characteristics to create effective images
Wide Angle Lens-characteristics

- Field of View --wide vista.
- Distortion
  - Expansion
    - Things close to the camera--look large
    - Things short distance away--look quite small..
  - Barrel distortion
Wide Angle Lens-characteristics

- **Movement**
  - good lens for camera mvt
    - Deemphasizes camera wobbling and bumps
    - less magnification
  - Good focus
    - Deep Depth of Field
Normal Angle Lens-performance characteristics

- Field of View
  - normal vision
- Distortion
  - normal vision
- Movement
  - good
- Depth of Field
  - in between
Narrow Angle Lens - characteristics

- Field of View -- Narrow
- Distortion
  - magnification
  - compression
Narrow Angle Lens - characteristics

- **Movement**
  - Camera movement extremely difficult
    - Magnifies jiggle
    - Focus critical

- **Depth of Field**
  - shallow
  - Selective focus
  - Rack focus
### Lens Table

<table>
<thead>
<tr>
<th>Focal length</th>
<th>Vista</th>
<th><strong>Depth of Field</strong></th>
<th>Focus</th>
<th>MVT</th>
<th>Distortion</th>
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</thead>
<tbody>
<tr>
<td>Long telephoto</td>
<td>narrow</td>
<td>shallow</td>
<td>critical</td>
<td>poor</td>
<td>compression</td>
</tr>
<tr>
<td>normal</td>
<td>Average</td>
<td>Average</td>
<td>In between</td>
<td>ok</td>
<td>none</td>
</tr>
<tr>
<td>Short Wide angle</td>
<td>wide</td>
<td>Deep</td>
<td>Easy/deep</td>
<td>best</td>
<td>Barrell and expansion</td>
</tr>
</tbody>
</table>
Using Depth of Field

- Deep depth of field - several actions on several planes
- Shallow depth of field - isolates
Filter Wheel

- Depends on camera
- 300’s
  - 3200
    - studio, reddish tinge
  - 5600
    - outdoor, bluish tinge
  - 5600 ND
- 270’s
  - Various levels of ND (neutral density)
Neutral Density

- ND = Neutral density
  - reduces light level without affecting color quality of light.
  - illumination too high
  - decreasing depth of field.
Diffusion Filter

-soften hard lines in shot--
dreamy effect

-can be done with filter
-can be done with stocking, or saran wrap/
vaseline