Course Introduction and Applications of Photoshop

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Summary of Course Objectives

• Learn basic theory and practical applications of digital image processing

• Work in groups on a substantial course project to create short animations using digital image processing tools.

• Examples of projects from last year can be seen under: www.cs.ualberta.ca/~lin/dream
Some applications of Photoshop

1. Creating Textures for Movies & Games
   - **Background Textures**
     - Making a scene with run down buildings
     - Creating an underwater scene
   - **Textures for objects**
     - The skin of Godzilla
     - Faces on animated characters
Increasing Dynamic Range

• When taking an indoor picture, with a bright sunny window, much of the room can appear dark and unclear.

• It is possible to select different regions in a scene & make them darker, brighter and modify the color curves; thereby creating the effect of a high dynamic range camera capture.
Color Correction in Photographs

- Colors captured by cameras may not be accurate.
- Can make colors more desirable before printing, or putting on a web page.
- Repairing streaks from lights, or red eye effects.
Special effect pictures

- Making a person ride a tiger
- Creating King Kong from a gorilla picture
• Touch up (remove wrinkles, add hair, …)

• Edit picture (e.g., remove unwanted guests from a family wedding picture)

• Fast browsing of very large images
• Creating animations
• …