

ar 1160/70 digital imagery

contact lane borstad (that's me the instructor), my office (L125) hours are monday, wednesday and friday from 11:00 to noon or you may reach me at (403) 539 - 2836 or better yet e-mail to Borstad@gprc.ab.ca - see also my web page 192.139.30.100/lane

times **A2** - monday 9:00 - 11:50 am
B2 - monday wednesday and friday - 8:00 am (ouch!) - 8:50 am

room L123

description AR 1160 and AR 1170 are designed to give students an introduction to the theory and practice of three dimensional computer generated images (CGI). Students will model, animate and render photorealistic images suitable for animation, game development, and/or video

Note: AR 1160 and AR 1170 are not programming courses. They are designed for students interested in learning to use existing tools for creating 3 dimensional images, developing personal expertise with those tools, and understanding the resulting aesthetic

objectives Students will:

- a. Acquire an solid understanding of the concepts and principles of 3D object creation.
- b. Develop skills in the use of specific computer tools applicable to 3D CGI.
- c. Produce a portfolio of work which demonstrates their knowledge and expertise.

assignments Major emphasis will be placed upon:

- Modelling basics of point, line, and polygons
- Organic shapes with spline curves, NURBS and Boolean operations.
- Rendering of photorealistic images
- Materials and surface treatments such as textures, reflection, refraction, transparency, specularly and bump mapping
- Photographic and atmospheric effect such as motion blur, depth of field and fog.

The following topics will be introduced in AR 1160 and expanded upon in AR 1170

- Animation via keyframe-based animation
- Inverse Kinematics for character animation
- 3D morphing
- Particle animation

grades

midterm----- 20%
project----- 40%
final ----- 40%

note

More than 10% absenteeism may constitute a failure except for medical or extenuating circumstances in which case a doctor's letter will be required.