Drawing from 2d curves to 3d meshes
Week 2: Sept. 1st

Objectives for week:
• Introduce Affine, Euclidean and Projective geometry concepts and representations
• Review vector operations including dot, cross and affine/convex combinations
• Introduce 3D mesh presentation of objects
• Generalize 2D parametric curves to 3D surfaces, and how to convert those to 3D meshes

Readings:
None yet

Handouts:
CMCS427NotesParametricSurfaceMesh.pdf
CMCS427NotesParametricNormal.pdf

Written homework:
Due:
Project 0 previously due
Coming up:
Hw2: Parametric Curves, due Sept. 22nd
Hw3: Vectors, due Sept. 25th
P1: Meshes and Transformations, due Sept. 29th

Lectures and videos:

Tuesday:
Tuesday will be a review of vector and metric geometry in 2D and 3D.
Material:
L03P1VectorsIntro.pdf with video (L03P1Vectors.pdf is an old file, ignore)
L03P2VectorAffine.pdf + video
L03P4VectorsCrossProduct.pdf + video
L03P5VectorsAffineCombinations.pdf + video
L03P6VectorsHomogenousCoordinates.pdf + video

Thursday:
Thursday will take continuous surfaces into 3D meshes
Material:
L04P1Meshes.pdf + video
L04P2ParametricSurfaces2.pdf + video
L04P3SurfacesToMeshes.pdf + video + CMCS427NotesParametricSurfaceMesh.pdf
L04P4SurfaceNormals.pdf + video + CMCS427NotesParametricNormal.pdf