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Subject: paper engineering course outline

Here's my course outline.

This covers only the broad goals and not the class to class details (We meet twice a week, three hours at a time, for 15 weeks, and I expect students to work on the material for at least six hours outside of class.) We do lots of small, get-acquainted-with-the-process projects that are not mentioned.

Also, keep in mind that this is an upper level (junior/senior) course for graphic design and studio majors who have considerable computer graphics background. All students are required to keep a design journal AND turn in finished designs for all the projects I then scan and photocopy these so everyone in the class has all the finished templates of everyone else.

We begin with a slideshow that showcases the wide variety and history of paper engineering, including pop-ups, point of purchase displays, laser cut greeting cards, contemporary paper models, WWII paper toys, a 1960s paper Slinky and the like.

Topic one: Origamic pop-ups from 1 sheet of cardstock

Project one: creation of an origamic architectural pop-up from one sheet of card stock. Choose a distinctive building from campus or the community.

Skills: Visualization and ideation using isometric graph paper.

Discussion: Selective compression - what details need to be rendered, what can be left out?

Resource: Origamic Architecture

http://www.amazon.com/gp/product/0870406566/sr=8-1/qid=1147697323/ref=pd_bbs_1/103-4465316-6292662?%5Fencoding=UTF8

Topic two: Traditional pop-ups

Project two: create a large, 11"x14" pop-up that portrays a natural disaster. Emphasis is on MOVEMENT.

Skills: Visualization and ideation using thumbnails. Overview of basic mechanisms.

Discussion: What is essential movement?

Popping UP is easy - **popping DOWN** is the hard part!

Resource: Elements of Pop-Up

http://www.amazon.com/gp/product/0689822243/ref=pd_sxp_grid_pt_2_1/103-4465316-6292662?%5Fencoding=UTF8

Topic Three: Automata

Project three: create a person or an animal that moves smoothly and efficiently

Skills: basic machines and how they work

Discussion: how is movement transferred from a circular motion to other movements?

Resource: A Handbook of Paper Automata

http://www.amazon.com/gp/product/1899618589/qid=1147698570/sr=1-1/ref=sr_1_1/103-4465316-6292662?s=books&v=glance&n=283155

NOTE: This is by far the MOST difficult project of them all, therefore the criteria are the most basic - simply get something to move efficiently!

Topic Four: Paper models

Project four: Create a three-dimensional paper model of the same architectural landmark illustrated in Project One.

Skills: three-view drawing...Finding the true-lengths of lines from three-view drawing

Discussion: designing elegantly - less is more!

Resource: Fiddler's Green architectural paper models



Clarksville, TN, Nov. 02 : Kell said, 'Comeon' I'll buy you a hot dog'.so we drive a couple minutes and arrive at this CHI-TOW (Chicago-Town) Hot Dog Stand. Turns out there was another reason to go there.. He's was working on a cardmodel of the local landmark and needed a few dimensions.