LARCH 7410/4410 Parametric Surfaces

Instructor name: Troy Malmstrom
Year and term: SP 15
Meeting location: KN 430

COURSE INFORMATION

DESCRIPTION
Roughly structured around the introductory level Grasshopper Workshop offered at the ACADIA 2009: reform() Conference in Chicago, students will obtain a working level of Grasshopper through a series of assignments and exercises. Topics covered will include: the interface, persistent vs. volatile data, data matching algorithms, functions & booleans, data trees, list & data management, vectors, attractor patterns, and much more.

Utilizing the Grasshopper interface within Rhino 5.0, students will begin by replicating a series of contemporary case-study projects employing the parametric design software. These projects range in scale from large topographies such as Eisenman’s Memorial to the Murdered Jews of Europe to façade studies such as Herzog & De Meuron’s Signal Box and more. After understanding each case-study, students will then take the project further as they propose their own modification to the parametric definition resulting in an altered version of the original project. The course will culminate in the fabrication of one these modified systems utilizing the school’s various prototyping and fabrication equipment.

COURSE OBJECTIVES
Students will gain introductory level knowledge to the application and understand of concepts upon which the software is based. They will be able to use the software to model parametrically in Rhino while also being able to explore alternate permutations. Upon completion of the course, the student will be able to demonstrate:

1. Basing understanding of computer graphics principles
2. Working knowledge of the operational and application of design software
3. Understanding the principles of computer – aided design
4. Ability to apply computer software to architectural design
5. The critical foundation for an understanding of the representational effects of this media