

# Computed Geometry

**ARCH 593 | Special Problems in Detail and Fabrication | 3 CH**

Illinois School of Architecture | Fall 2026 | Thursdays 5:00 PM to 7:50 PM

Instructor: Niloufar Emami | Assistant Professor | [nemami@illinois.edu](mailto:nemami@illinois.edu) | 216 TBH

Office hours: contact instructor to set up a time.



3Dprinted steel bridge in Amsterdam, by Van Wijnen and Max3D.

## Course overview

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“We shape our tools, and thereafter our tools shape us.”

Advancements in computational design technologies—such as Computer-Aided Design (CAD), parametric modeling, and simulation tools—are transforming architectural design. These tools not only influence the forms we create but also reshape the way architects think and design. The focus of design thinking is increasingly shifting from “designing the outcome” to “designing and defining relationships between design components,” fostering an iterative computational practice.

In this course, students will explore computational geometry and geometric principles for creating complex freeform geometries, with a specific emphasis on geometries suited for precast construction. Rhino and Grasshopper are the primary tools that will be used. The seminar also includes weekly reading assignments and discussions on computation, materials, and digital fabrication.

This seminar is designed to complement the graduate studio offered in the same semester. Priority enrollment will be given to students enrolled in the studio, with any remaining seats made available to other interested students.