

## Professional Options or Elective/Digital Media Minor

Iowa State University | Department of Architecture  
Spring 2017 | Forehand

### ARCH 436: Competition to Construction – Digital Fabrication in the Real World



#### INSTRUCTOR INFORMATION

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#### LOGISTICS

College of Design, Department of Architecture

Course Times: TR 12:40-2:00 pm

Credit Hours: 3

Course fee: \$125 for transportation to fabricators and digital fabrication supplies

Requirements: ARCH 230 or DSN S 232

#### PROJECT DESCRIPTION

This unique outreach seminar will explore the logistics of fabricating small-scale architecture by engaging multiple softwares and digital fabrication methodologies and then coordinating with local fabricators.

#### Background:

This summer a team of Iowa State University interdisciplinary design students won an international invitational competition to create outdoor public artwork for the Winterset Public Library. The winning entry, "Open Book Nook," was one of four proposals submitted by students from three universities — Ball State University, Muncie, Ind.; Dalhousie University, Halifax, Nova Scotia; and Iowa State — at the invitation of the nonprofit Friends of the Library.

This course will tackle Phase 2 of this project:

**Design Development** – The current design is something that most young designers would make; generic form with unspecific materials and connections. Working with local fabricators, students will develop a revised design and design documents that clearly articulate the spirit of the original design while meeting budget and time constraints.

**Design and Digital Fabrication** – The winning proposal purposely left undesigned portions for future contributions from students. Working in teams, students will develop, prototype, and create design documents for a series of interactive games to be embedded in each structure.

Learning outcomes will focus on the specificities of digital fabrication within construction documents, methods of collaboration with fabricators and contractors, as well as hands-on experience with 3D printing and CNC milling for the purpose of prototyping.