EPFL

AR-503	**Digital design and making: A critical introduction**		
	Parascho Stefana		

Cursus	**Sem.**	**Type**
Architecture	MA1, MA3	Opt.

Language of teaching	English
Credits	3
Session	Winter
Semester	Fall
Exam	During the semester
Workload	90h
Weeks	12
Hours	**2 weekly**
Courses	2 weekly
Number of positions	

Summary

The course introduces digital design and fabrication methods by combining the transfer of technical skills with theoretical knowledge and critical reflection. Topics include: scripting/programming for design, mass customisation through digital fabrication and robotic construction.

Content

Keywords

Digital design, digital fabrication

Learning Prerequisites

Recommended courses

AR-327 Introduction to Computational Architecture is helpful, but not required. Tutorials will begin from a basic level.

Important concepts to start the course

General understanding of programming concepts is useful and encouraged. However, no programming experience is explicitly required.

Learning Outcomes

By the end of the course, the student must be able to:

• Develop a digital design and fabrication process
• Implement existing digital design and fabrication methods
• Assess / Evaluate the role and relevance of digital tools in a design/fabrication process
• Formulate an argument for a digital design/fabrication process
• Discuss the role of digital tools in architecture

Teaching methods

Readings and discussions, as well as tutorials and individual assistance for developing small projects

Assessment methods

Students will be evaluated through the submission of regular exercises. These will consist of reading responses and

short essays as well as exercises related to the introduced technical skills (programming, digital design and digital fabricaton).
In addition, participation in class will be considered, as well as a fnal paper synthethising the results of the learned methods and formulating an individual perspective on the discussed topics.
The evaluation distribution is as follows:
- Exercises: 60%
- Final paper: 20%
- Class participation: 20%

Supervision

Office hours   Yes
Assistants   Yes

Resources

Moodle Link

- https://go.epfl.ch/AR-503

Prerequisite for

recommended for AR-508 UE L : Digital Design and Making: New Approaches