

Fall 2020 Course 3h
Petra Gruber
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The
University
of Akron

BIOMIMICRY CERTIFICATE ELECTIVE

BIODESIGN

TEXTILE HYBRIDS

**valid for ADVANCED GRAPHIC DESIGN
open to students from all departments**

**Visiting Artist
Svenja Keune**

Studio Biomimetic Design Fall 2020 applies principles of biomimetics to artistic and architectural design and prototyping. We will explore **textile based biocomposites designed for and with living organisms such as plants, insects and bacteria.**

It is an **entry level studio** design exercise, using nature as a model for creating **innovative solutions**, at the intersection of biology and design. No specific knowledge is needed to take this course, students from all departments are welcome. The course outcomes are design project representations including **graphics, digital or analog models and prototypes.**

Harnessing the potentials of living organisms for design and manufacturing is a rapidly expanding field and an approach towards a more sustainable built environment. In this course we will focus on natural textiles, biomaterials and patterns. We will design patterns based on principles from biomimicry which are designed for a chosen organism, compile extrudable substrates from e.g. sand, clay and cellulose, and extrude them onto textile fabrics to create a textile based biocomposite for a spatial application. These structures will be installed in a chosen everyday environment and their transformation and interactions with the environment documented over time. The results, structures, scenarios and autobiographical experiences, will be presented at the Emily Davis Gallery.

The course is held in collaboration with **artistic researcher Svenja Keune** who will visit for two workshops in October and November.

In the light of the current COVID-19 crisis there will be a plan in place to hold this class remotely.

7100:316-001 Biodesign
3100:495/695-002 ST Biology
Tu/Thu 2:00-4:45pm Folk Hall 148
sophomore status/approval from instructor
please contact: pgruber@uakron.edu