COURSE DETAIL

INTRODUCTION TO BIODESIGN
Country Germany
Host Institution Technical University Berlin
Program(s) Technical University Summer
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Biological Sciences Bioengineering
UCEAP Course Number 103
UCEAP Course Suffix
UCEAP Official Title INTRODUCTION TO BIODESIGN
UCEAP Transcript Title BIODESIGN
UCEAP Quarter Units 4.00
UCEAP Semester Units 2.70

Course Description
This course offers students the opportunity to envision future applications of biotechnology. The course covers various interaction and design techniques for working with living media. Five of the most used design techniques are explored in the context of bioluminescent bacteria and algae. Moreover, students learn, in a practical manner, how to culture these micro-organisms, and how to build tools that allow them to engage with the living organisms. Each week begins with theory (lectures), followed by a hands-on workshop and a creative session. The course concludes with a publication of the future pieces designed by the students. The lectures introduce the biological aspects of the target organisms (e.g., nutrients, metabolism, growth and reproduction), as well as various design techniques that enable interaction with the organisms through all five senses: visual, auditory, gustatory, olfactory, tactile. During the workshops, the students practice how to successfully grow living organisms and how to build bio-reactors and measuring tools for maintaining a living culture. The creative sessions engage the students in designing and conceptualizing based on living media. Throughout the course, students have the opportunity to visit biodesign project spaces and studios in Berlin for inspiration.

Language(s) of Instruction
English

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Host Institution Course Details

Host Institution Campus
TUBS

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed

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