ORIENTATION MASTER
Artificial Morphogenesis

STUDIO (2016/2017)
Singapore Changi Business Park

PROFESSOR
Jeffrey Huang

TEAM
Peter Ortner, Immanuel Koh

LABORATORY
Media x Design Lab, EPFL ENAC IA LDM2

SUMMARY (1500 SIGNS)
The advent of new digital technologies has had a twofold impact on architectural thinking and urban design, transforming, on one hand, the processes for form generation and design production through algorithmic and parametric technologies, and, on the other hand, enabling an escape from the static fate of the built environment by facilitating dynamic interaction between inhabitants and their surrounding. Our interest in this orientation “Artificial Morphogenesis” is to explore meaningful form generating processes by the use of algorithmic and parametric tools and introduce the notion of growth typologies in architectural and urban design thinking. In particular, we examine the potential of responsive morphogenetic design to explore intuitive form finding processes that address bio-climatic and socio-economic challenges. In 2016/17 our studio site will be Changi Business Park in Singapore, a rapidly growing nation island that has evolved from a port city to a logistics, service and knowledge hub. We will develop urban and architectural strategies for the site that explore the productive imbrication of architectural form and urban infrastructures and ecologies.

METHODOLOGY
Data-driven Design, Grasshopper

DURATION
The studio theme will span the entire academic year 2016/17. Accordingly there will be continuity between the fall and spring semester, but each semester can be followed independently.

FIELD TRIP
An optional field trip to Singapore may be organized during the Winter break, depending on interest.

PARTNER INSTITUTIONS
Singapore University of Technology and Design, ETH Future Cities Lab Singapore

LANGUAGE
The official language is English. Desk crits can occur in English or French.

GROUP WORK
Architectural projects will be developed individually (or exceptionally in groups of 2). Some group work may occur in the analysis stages.