COURSE DETAIL

ENGINEERING BIOLOGY
Country Singapore
Host Institution National University of Singapore
Program(s) National University of Singapore
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Bioengineering
UCEAP Course Number 109
UCEAP Course Suffix
UCEAP Official Title ENGINEERING BIOLOGY
UCEAP Transcript Title ENGINEERING BIOLOGY
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course introduces engineering students to Engineering Biology, which involves genetic modification of biological systems using engineering approach. These engineered biological systems have wide biomedical and industrial applications. The course covers key engineering concepts and methodologies to the design of engineered genetic systems. Topics include foundational techniques in Engineering Biology, abstraction and composition of functional genetic devices and systems, use of computational modelling for genetic device and system design, combinatorial logic gene circuit design, use of control theory in dynamic device and systems design, and applications of engineered systems and societal impact.

Language(s) of Instruction
English

Host Institution Course Number
BN4501

Host Institution Course Title
ENGINEERING BIOLOGY

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Biomedical Engineering

Course Last Reviewed
2023-2024

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