COURSE DETAIL

MOLECULAR NEUROSCIENCE

Country
Hong Kong

Host Institution
University of Hong Kong

Program(s)
University of Hong Kong

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Biological Sciences

UCEAP Course Number
111

UCEAP Course Suffix

UCEAP Official Title
MOLECULAR NEUROSCIENCE

UCEAP Transcript Title
MOLECULAR NEUROSCI

UCEAP Quarter Units
5.00

UCEAP Semester Units
3.30

Course Description
This is an advanced course exploring the latest frontier on molecular and cellular mechanisms that underlie the structure and function of the central nervous system. The course covers fundamental concepts on the molecular basis of brain functions during development and aging, and discusses how dysregulation of these processes might lead to various brain disorders. Topics include axon guidance, synaptic transmission, formation and plasticity of synapses, learning and memory, and diseases of the nervous systems such as cognitive and emotional disturbance. Latest techniques in neuroscience research, such as the use of viral-mediated expression of transgenes, optogenetics, chemogenetics, and induced pluripotent stem cells, are introduced. Lectures tutorials, presentation of research papers and research-oriented practical training are emphasized so as to expose students to different areas in molecular neuroscience through multiple learning activities.

Language(s) of Instruction
English

Host Institution Course Number
BBMS3011

Host Institution Course Title
MOLECULAR NEUROSCIENCE

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Biomedical Sciences

Course Last Reviewed

Print