COURSE DETAIL

FROM BRAIN TO BEHAVIOR
Country United Kingdom - England
Host Institution University of Cambridge, Pembroke College
Program(s) Summer in Cambridge
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Biological Sciences
UCEAP Course Number 104
UCEAP Course Suffix S
UCEAP Official Title FROM BRAIN TO BEHAVIOR
UCEAP Transcript Title BRAIN TO BEHAVIOR
UCEAP Quarter Units 5.00
UCEAP Semester Units

3.30

Course Description
Our brains enable all we do, think, and remember, yet we know little about how this happens and why it sometimes fails. This course gives a thorough, yet approachable, introduction to theoretical neuroscience, highlighting the key areas where it has already made seminal contributions, and introducing students to modern themes. The course begins with an introduction to the biology of nerve cells, and works its way towards compact mathematical descriptions of the behavior of single neurons and neural networks. The course goes through various types of networks, and investigates how they may support specific computations such as perception or decision-making. Lectures are complemented by practical programming exercises, to be run in the browser during the seminars, thus giving students a chance to explore models of neurons and networks in detail.

Language(s) of Instruction
English

Host Institution Course Number

Host Institution Course Title
FROM BRAIN TO BEHAVIOUR

Host Institution Course Details

Host Institution Campus
University of Cambridge

Host Institution Faculty

Host Institution Degree

Host Institution Department
Science and Maths

Course Last Reviewed

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