

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

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 BEHAVIOR

Host Institution Campus

University of Cambridge

Host Institution Faculty**Host Institution Degree****Host Institution Department**

Science and Maths

[Print](#)