

COURSE DETAIL

COMPUTATIONAL AND TRANSLATIONAL PSYCHIATRY

Country

Ireland

Host Institution

Trinity College Dublin

Program(s)

Trinity College Dublin

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Psychology

UCEAP Course Number

178

UCEAP Course Suffix**UCEAP Official Title**

COMPUTATIONAL AND TRANSLATIONAL PSYCHIATRY

UCEAP Transcript Title

COMP/TRANS PSYCHTRY

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

The field of computational psychiatry has taken off over the last decade. Research in this field uses computational modeling to identify the precise component mechanisms underlying deficits and biases in learning, decision-making and other cognitive processes. The first part of this course reviews some of the early classic papers in this new field illustrating how this approach has been used to advance understanding of psychiatric disorders ranging from anxiety and depression to addiction and schizophrenia. Each week, one or two papers are set in advance, presented using a lecture format, and discussed via class participation. These papers are selected to present some of the most widely used theoretical frameworks and experimental tasks. In the second part of the course, students are introduced to current issues in advancing the nosology of psychiatric disorders. This covers why the field has become unhappy with traditional binary diagnostic categories and alternate approaches advanced to address this, including NIMH's Research Domain Criteria (RDoC) framework for investigating psychiatric disorders, the Hierarchical Taxonomy Of Psychopathology (HiTOP), and modeling of latent factors to tease apart symptom variance associated with comorbid conditions. Following this, students are introduced to precision and translational psychiatry and issues pertaining to the promise or perils of translating computational psychiatry findings into real-world practice.

Language(s) of Instruction

English

Host Institution Course Number

PSU34870

Host Institution Course Title

COMPUTATIONAL AND TRANSLATIONAL PSYCHIATRY

Host Institution Course Details

<https://www.tcd.ie/students/orientation/visiting-exchange/module-enrolment/full...>

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Psychology

Course Last Reviewed

2025-2026

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