

# COURSE DETAIL

## BIOINFORMATICS

**Country**

United Kingdom - England

**Host Institution**

University of London, Royal Holloway

**Program(s)**

University of London, Royal Holloway

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Computer Science

**UCEAP Course Number**

112

**UCEAP Course Suffix****UCEAP Official Title**

BIOINFORMATICS

**UCEAP Transcript Title**

BIOINFORMATICS

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

**Course Description**

This course explores the main approaches currently in use in bioinformatics, with special emphasis on the analysis of DNA and protein sequences emerging from genome sequencing projects and genome-wide experimental assays. Topics include basic molecular biology: exploration into the basic components of living cells, their functions, and interactions, as well as other concepts essential to understanding the use of computers in biology, sequence alignments, substitution matrices, phylogenetic trees, dynamic programming, systems biology, gene expression analysis, protein-protein interaction analysis, biological networks, and clustering.

**Language(s) of Instruction**

English

**Host Institution Course Number**

CS3110

**Host Institution Course Title**

BIOINFORMATICS

**Host Institution Course Details**

<https://www.royalholloway.ac.uk/computerscience/informationforcurrentstudents/u...>

**Host Institution Campus**

Royal Holloway, University of London

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

Computer Science

**Course Last Reviewed**

2018-2019

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