

COURSE DETAIL

COMPUTATIONAL ASTROPHYSICS

Country

United Kingdom - Scotland

Host Institution

University of Edinburgh

Program(s)

University of Edinburgh

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Physics

UCEAP Course Number

104

UCEAP Course Suffix**UCEAP Official Title**

COMPUTATIONAL ASTROPHYSICS

UCEAP Transcript Title

COMPUTNAL ASTROPHYS

UCEAP Quarter Units

4.00

UCEAP Semester Units

2.70

Course Description

This course provides an introduction to advanced computational techniques used for numerical simulations in astrophysics involving gravity and/or fluids. The topics include N-body methods for solving gravity problems and numerical hydrodynamics techniques for fluids. Astrophysical topics for which the methods are used include cosmological simulations of structure formation in the Universe, the formation and evolution of galaxies, the formation and evolution of stars and planetary systems, and the collisions of neutron stars and black holes as a model for gamma-ray bursters.

Language(s) of Instruction

English

Host Institution Course Number

PHYS11037

Host Institution Course Title

COMPUTATIONAL ASTROPHYSICS

Host Institution Course Details

<http://www.drps.ed.ac.uk/18-19/dpt/cxphys11037.htm>

Host Institution Campus

Edinburgh

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

Physics and Astronomy

Course Last Reviewed

2018-2019

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