

## COURSE DETAIL

### NUCLEAR AND PARTICLE PHYSICS

**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**

116

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

NUCLEAR AND PARTICLE PHYSICS

**UCEAP Transcript Title**

NUCLR&PARTICLE PHYS

**UCEAP Quarter Units**

4.00

**UCEAP Semester Units**

2.70

## Course Description

This course focuses on the consequences of quantum physics at high energies and short distances. The course also explores topics such as relativistic and quantum physics, the symmetries of fermions and bosons, and forces within the nuclear and particle physics domain. Fundamental particles and composite states are introduced, along with investigating the quantum numbers and symmetries associated with the interactions of these particles. Models used to describe the phenomena observed on the subatomic scale are discussed, along with explaining their successes and shortcomings. Experimental methods associated with the subatomic world are also introduced. This course covers the same nuclear and particle physics concepts as the 20-credit course, "Relativity, Nuclear and Particle Physics", however relativity is not covered.

## Language(s) of Instruction

English

## Host Institution Course Number

PHYS10106

## Host Institution Course Title

NUCLEAR AND PARTICLE PHYSICS

## Host Institution Campus

Edinburgh

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Physics and Astronomy

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