COURSE DETAIL

PARTICLE PHYSICS
Country Canada
Host Institution McGill University
Program(s) McGill University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Physics
UCEAP Course Number 172
UCEAP Course Suffix
UCEAP Official Title PARTICLE PHYSICS
UCEAP Transcript Title PARTICLE PHYSICS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description
This course is an introduction to particle physics. Students are required to have an academic background in quantum mechanics and special relativity as a prerequisite. The course emphasizes phenomenology within the standard model of particle physics. The course discusses topics including an overview of the standard model and fundamental forces; continuous and discrete symmetries, and elementary group theory; special relativity; quarkonium and baryonic bound states; Feynman rules, decay rates, and cross sections; Dirac equation and Feynman rules for quantum electrodynamics; weak interaction decay rates; and neutrino oscillations, and solar and atmospheric neutrinos.

Language(s) of Instruction
English

Host Institution Course Number
PHYS 567

Host Institution Course Title
PARTICLE PHYSICS

Host Institution Course Details

Host Institution Campus
Science

Host Institution Faculty

Host Institution Degree

Host Institution Department
Physics

Course Last Reviewed

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