Module: Elective Advanced Lectures: Applied Physics

Module No.: physics70b

Course: Nuclear Reactor Physics (A)

Course No.: physics775

Category	Type	Language	Teaching hours	CP	Semester
Elective	Lecture	English	2	3	ST

Requirements for Participation:

Preparation:
Fundamental nuclear physics

Form of Testing and Examination:
Written or oral examination

Length of Course:
1 semester

Aims of the Course:
Deeper understanding of nuclear power generation (fisson and fusion)

Contents of the Course:
Physics of nuclear fission and fusion, neutron flux in reactors, different reactor types, safety aspects, nuclear waste problem, future aspects
and
Excursion to a nuclear power plant

Recommended Literature:
H. Hübel: Reaktorphysik (Vorlesungsskript, available during the lecture)
M. Borlein: Kerntechnik, Vogel (2009)
W. M. Stacey: Nuclear Reactor Physics, Wiley & Sons (2007)