

Fusion device engineering: design, safety, and refueling technology

Academic Year: ( 2022 / 2023 )

Review date: 16-03-2021

Department assigned to the subject: Physics Department

Coordinating teacher:

Type: Electives ECTS Credits : 6.0

Year : 2 Semester : 1

DESCRIPTION OF CONTENTS: PROGRAMME

All courses are expressed in the mathematical language typical of physics: differential calculus in one and several variables, complex numbers, algebra and statistics. They also include basic and advanced concepts of modern Physics (Mechanics, Thermodynamics, Electromagnetism and Quantum Mechanics), Engineering and Technology.

Fusion devices; reactor layout; magnetic confinement devices; vacuum vessel; coils; cryostat; heating systems; electric systems; auxiliary systems; fuel cycle; waste management; safety and environmental impact.