Module Handbook

Module Name:	Nuclear Fuel Management
Module Level:	Bachelor
Abbreviation, if applicable:	FI3242
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	Third Year
Module coordinator(s):	
Lecturer(s):	
Language:	Bahasa Indonesia
Classification within the curriculum:	~~General Studies / Major Subject /~~ Elective Studies
Teaching format / class hours per week during the semester:	2 hours of lecture
Workload:	2 hours of lecture
Credit Points:	2
Requirements:	1. FI 2203 Fisika Modern
Learning goals/competencies:	Knowledge 1. Demonstrate knowledge about nuclear fuel cycle in general Competence 2. Ability to explain processes regarding the front-end fuel cycle 3. Ability to explain processes regarding the in-core fuel management 4. Ability to explain processes regarding the nuclear waste management Skill 5. Ability to apply knowledge to analyze economics aspects of nuclear power plant (NPP) 6. Ability to apply knowledge to analyze environmental aspects of nuclear power plant (NPP)
Content:	Overview of nuclear fuel cycle, uranium exploration and mining. Uranium conversion and enrichment, fuel design and fabrication, fuel loading, In-core fuel management, reprocessing and recycling, economic aspect of NPP, high level waste management, low level and medium level management, environmental aspect of power plant.
Study/exam achievements:	Students are considered to be competent and pass if at least get 50% of maximum mark of the exams, homework, and research based learning.
Forms of Media:	Slides and LCD projectors, blackboards.
Literature:	1. R. G. Cochran and N. Tsoulfanidis, “The Nuclear Fuel Cycle: Analysis and Management”, ANS, 1999 2. P.D. Wilson, “The Nuclear Fuel Cycle: From Ore to Waste”, Oxford, 2001 3. W. Marshall, “Nuclear Power Technology Vol. 2 Fuel Cycle”, Clarendon Press Oxford, 1983
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