

SNEAM / ANWM Advanced Nuclear Waste Management

Program syllabus

ECOLE DES MINES DE NANTES	SNEAM/ANWM : Master of Science and Technology in Advanced Nuclear Waste Management	Year 1		Year 2	
		Sem 1	Sem 2	Sem 1	Sem 2
CODE	Scientific and Technical courses	European Crédit - ECTS			
ST111IR	Physics of Ionising Radiation E. Liénard Nuclear Physics and Radioactivity Interaction of Radiation with Matter Ionizing Radiation Detection	8			
ST212RA	Physico-Chemistry of Environment T. Suzuki Environment and Radioactivity Introduction to radiochemistry Detectors and radiochemical analyses		7		
ST112RP	Radioprotection C. Hartnack Principals of Radioprotection Work Practices Simulation		6		
ST312NT	Introduction to Nuclear Technology N. Thiollière Nuclear Reactors Aspects of criticality Accelerators Fuel cycle and nuclear materials		4		
ST121WS	Wastes, Conditioning & Storage A. Abdelouas Inventories of waste and classification Waste characterization and conditioning Storage concepts and sites			7	
ST221DD	Dismantlement & Decommissioning of Nuclear Installations B. Grambow Generalities Actors Political, economical and societal implications Problematics			4	
ST321GD	Geological Disposal A. Abdelouas Geology and hydraulics Repository technology Engineered barrier system Phenomenology of evolution			7	
ST421SA	Safety A. Kalinichev Geochemical and transport modelling Transfer to human beings Performance and safety Radioprotection Environmental impact			5	
	Social Science & Management				
SSG111PM	Project Management P. Laborie Project Management Intercultural Management International negotiations	8			
SSG112EM	Environmental Management and Strategies of Sustainability A. Abdelouas International Environmental Management Risk Analysis		7		

	Energy Strategies				
	Environment and Sustainability Management				
SSG121NS	Nuclear : Management, Safety & Society B. Journée			5	
	Scientific and Technical Project				
PRI111SP	Integrated Scientific Project J. Fadili	3			
PRI112EP	Integrated Nuclear Engineering Project A. Kalinichev		3		
	Training for the corporate world				
FEM11VC	Visits and Conferences J.S. Broc	1	1		
FEM22MT	Master Thesis E. Michel				30
	Generic Engineering Methods				
MGI111DA	Measurement and Data Analysis D. Boilley	8			

Additional credits

	Foreign Languages				
LV121FL	French Language and Culture S. Evans	2	2	2	