

## Table of Curriculum (Graduate Program)

Classification	Subject No.	Code	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Elective	NQE502	33.502	Principles and Applications of Nuclear Engineering	3:0:3(4)	Fall	⊙
	NQE503	33.503	Radiation Science, Technology and Applications	3:0:3(4)	Spring-Fall	⊙
	NQE510	33.510	Nuclear Reactor Kinetics	3:0:3(4)	Fall	⊙
	NQE512	33.512	Nuclear Reactor Analysis and Design	3:0:3(4)	Spring	⊙
	NQE513	33.513	Neutron/Radiation Transport Theory and Computation	3:0:3(4)	Spring	⊙
	NQE514	33.514	Monte Carlo Methods and Applications	3:0:3(4)	Spring	⊙
	NQE517	33.517	Fast Reactor Design and Analysis	3:0:3(4)	Fall	⊙
	NQE521	33.521	Reactor Thermal -Hydraulics	3:0:3(4)	Fall	⊙
	NQE522	33.522	Nuclear Power Plant Design Project	3:0:3(4)	Spring-Fall	⊙
	NQE523	33.523	Nuclear Reactor Safety	3:0:3(4)	Spring-Fall	⊙
	NQE524	33.524	Simulation of Nuclear and Quantum System	3:0:3(4)	Spring-Fall	⊙
	NQE526	33.526	Quantum and Micro Energy Transport	3:0:3(4)	Fall	⊙
	NQE527	33.527	Gas-cooled Reactors and Hydrogen	3:0:3(4)	Fall	⊙
	NQE528	33.528	Introduction to Risk and Reliability Engineering	3:0:3(4)	Fall	⊙
	NQE529	33.529	Nuclear System Design Course	3:0:3(4)	Spring	⊙
	NQE533	33.533	Nuclear Power Plant Instrumentation and Control Systems	3:1:3(6)	Spring-Fall	⊙
	NQE535	33.535	Human Factors Engineering in Nuclear Power Plants	3:0:3(4)	Spring-Fall	⊙
	NQE537	33.537	Wireless Power Electronics	3:0:3(4)	Spring	⊙
	NQE538	33.538	Smart Grid and Power Electronics	3:0:3(4)	Spring	⊙
	NQE540	33.540	Nuclear Chemical Engineering	3:0:3(4)	Spring	⊙
	NQE541	33.541	Nuclear Waste Management	3:0:3(4)	Fall	⊙
	NQE542	33.542	Chemistry of Actinides	3:0:3(4)	Fall	⊙
	NQE543	33.543	Nuclear Power Plant Water Chemistry	3:0:3(4)	Fall	⊙
	NQE545	33.545	Radiation Chemistry	3:0:3(4)	Spring	⊙
	NQE551	33.551	Nuclear Reactor Metallurgy	3:0:3(4)	Spring-Fall	⊙
	NQE552	33.552	Integrity of Nuclear Structural Materials	3:0:3(4)	Spring	⊙
	NQE553	33.553	Nuclear Fuel Engineering	3:0:3(4)	Spring-Fall	⊙
	NQE555	33.555	Mechanics of Irradiated Material	3:0:3(4)	Spring-Fall	⊙
	NQE561	33.561	Radiation Measurement Systems	3:0:3(4)	Spring-Fall	⊙
	NQE562	33.562	Radiation Imaging Instrumentation	3:0:3(4)	Spring	⊙
	NQE563	33.563	Radiation Biology	3:0:3(4)	Spring-Fall	⊙
	NQE564	33.564	Physics of Medical Imaging	3:0:3(4)	Spring	⊙
	NQE571	33.571	NMR Engineering	3:1:3(6)	Spring-Fall	⊙
	NQE572	33.572	Neutron Nano-Characterization	3:0:3(4)	Spring-Fall	⊙
NQE575	33.575	Nuclear Energy Policy	3:0:3(4)	Fall	⊙	
NQE581	33.581	Nuclear Fusion Engineering	3:0:3(4)	Spring	⊙	

Classification	Subject No.	Code	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
	NQE582	33.582	Applied Plasma Engineering	3:0:3(4)	Fall	◎
	NQE583	33.583	Engineering of Charged Particle Beams	3:0:3(4)	Fall	◎
	NQE584	33.584	Radiation Protection and Regulations	3:0:3(4)	Fall	◎
	NQE585	33.585	Introduction to Nuclear Safety Regulation	3:0:3(4)	Fall	◎
	NQE586	33.586	Safety Regulation for Nuclear Installations	3:0:3(4)	Spring	◎
	NQE587	33.587	Regulation for Nuclear Fuel Cycle and Emergency Preparedness	3:0:3(4)	Winter	◎
	NQE588	33.588	Advanced Design Project I for Nuclear and Quantum Engineering	0:9:3	Spring	◎
	NQE589	33.589	Advanced Design Project II for Nuclear and Quantum Engineering	0:9:3	Fall	◎
	NQE595	33.595	Technical Writing in Nuclear and Quantum Engineering	3:0:3(4)	Fall	◎
	NQE597	33.597	Special Topics in Nuclear and Quantum Engineering III	1:0:1(4)	Spring-Summer-Fall	◎
	NQE598	33.598	Special Topics in Nuclear and Quantum Engineering I	2:0:2(4)	Spring-Summer-Fall	◎
	NQE599	33.599	Special Topics in Nuclear and Quantum Engineering II	3:0:3(4)	Spring-Summer-Fall	◎
	NQE625	33.625	Computational Analysis in Nuclear System	3:0:3(4)	Spring	
	NQE628	33.628	Application of Probabilistic Safety Assessment	3:0:3(4)	Fall	
	NQE631	33.631	Nuclear and Quantum Instrumentation and Control Design	2:3:3(6)	Spring-Fall	
	NQE654	33.654	Materials for Nuclear Fuel Cycle	3:0:3(4)	Fall	
	NQE656	33.656	Advanced Nuclear Systems and Materials	3:0:3(4)	Spring-Fall	
	NQE675	33.675	Nuclear Nonproliferation, Safeguards, and Security	3:0:3(4)	Spring-Fall	
	NQE726	33.726	Special Topics in Nuclear Safety Analysis	2:3:3(6)	Fall	
<b>Research</b>	NQE960	33.960	M.S. Thesis Research		Spring-Fall	Spring-Fall
	NQE965	33.965	M.S. Independent Research		Spring-Fall	
	NQE966	33.966	M.S. Seminar	1:0:1	Spring-Fall	
	NQE980	33.980	Ph.D. Thesis Research		Spring-Fall	
	NQE986	33.986	Ph.D. Seminar	1:0:1	Spring-Fall	

※ The classification, subject name, and mutual recognition of courses may change depending on the year of attendance.