



Study Plan

M.Sc. Power Engineering

Specialization: Nuclear Power Engineering

Faculty of Power and Aeronautical Engineering

Study plan for reference only; may be subject to change.

Lc – Lecture T – Tutorial Lb – Laboratory P – Project S – Seminar

Semester 1

List of field of study courses:

No.	Course number	Course name	Lc	T	Lb	P	S	ECTS points
1.	ML.ANK348	Computational Fluid Dynamics	2	0	1	0	0	3
2.	ML.ANK415	Energy Transport	1	1	0	0	0	2
3.	ML.ANK342	Finite Element Method 1	2	0	1	0	0	4
4.	ML.ANK486	Mathematical Modelling and Process Identification	2	1	0	0	0	4
5.	ML.ANK347	Numerical Methods in Heat Transfer	2	0	1	0	0	3
6.	ML.ANK481A	Partial Differential Equations	2	1	0	0	0	4

List of specialization courses:

No.	Course number	Course name	Lc	T	Lb	P	S	ECTS points
1.	ML.ANS664	Elements of Nuclear Physics	2	1	1	0	0	4
2.	ML.ANS700	Legal Frames for Nuclear Power Industry	1	0	0	0	0	2

Semester 2

List of field of study courses:

No.	Course number	Course name	Lc	T	Lb	P	S	ECTS points
1.	ML.ANK371	Business Law	2	1	0	0	0	2
2.	ML.ANK385	Neural Networks	2	0	0	0	0	3
3.	ML.ANW132	Physics 2	2	0	0	0	0	3
4.	ML.ANS599	Statistical and Nonequilibrium Thermodynamics	2	0	0	0	0	2

List of specialization courses:

No.	Course number	Course name	Lc	T	Lb	P	S	ECTS points
1.	ML.ANS671	Contemporary Nuclear Reactor Systems (LWR, HWR)	3	0	0	0	0	4
2.	ML.ANS673	Nuclear Fuels and Fuel Cycles	2	0	0	0	0	2
3.	ML.ANS672	Nuclear Reactor Modelling and Simulation	2	1	2	0	0	6
4.	ML.ANS666	Nuclear Reactor Physics	2	1	2	0	0	6

Semester 3

List of field of study courses:

No.	Course number	Course name	Lc	T	Lb	P	S	ECTS points
1.	ML.ANS559	Information Systems in Management	2	0	0	0	0	2
2.	ML.ANK445	Project Management	2	0	0	0	0	2

List of specialization courses:

No.	Course number	Course name	Lc	T	Lb	P	S	ECTS points
1.	ML.ANK382	Engineering Project	0	0	0	4	0	3
2.	ML.ANS670	GenIV Nuclear Reactor Systems (HTR, FBR)	2	0	0	0	0	2
3.	ML.ANK491	Intermediate Masters Project	0	0	0	6	0	6
4.	ML.ANS676	NPP operation and safety	2	0	0	0	0	2
5.	ML.ANS675	NPP Safety	2	1	0	0	0	3
6.	ML.ANS688	Nuclear energy and international security	1	0	1	0	0	2
7.	ML.ANS701	Nuclear Instrumentation and Control	2	0	2	0	0	4
8.	ML.ANS702	Thermonuclear synthesis	2	0	0	0	0	2

Semester 4

List of specialization courses:

No.	Course number	Course name	Lc	T	Lb	P	S	ECTS points
1.	ML.ANS678	Internship at a nuclear installation	0	0	0	0	20	8
2.	ML.ANW138	Master Diploma Seminar	0	0	0	2	0	2
3.	ML.ANW137	Master Diploma Thesis	0	0	0	15	0	20