

PhD study in Mechanics - Programme

Semester I

Lp	Module	No	ECTS	No of hours					Credit type
				L	Con	Lab	P	S	
1	Modelling of mechanical systems - selected problems	30	2	15	10	0	5	0	exam
2	Perturbation methods in mechanics	15	1	15	0	0	0	0	credit
3	Numerical methods in mechanics	30	1	15	0	0	15	0	credit
4	Doctoral seminar	15	1	0	0	0	0	15	credit
5	Experimental methods in mechanics I	15	1	8	0	7	0	0	credit
Sum		105	6	53	10	7	20	15	

Semester II

Lp	Module	No	ECTS	No of hours					Credit type
				L	Con	Lab	P	S	
1	Publication and presentation methodology	15	1	6	0	0	9	0	credit
2	Bifurcation and stability of structure	30	2	15	15	0	0	0	exam
3	Advanced problem of FEM.	30	1	15	0	0	15	0	credit
4	Experimental methods in mechanics II	15	1	8	0	7	0	0	credit
5	Doctoral seminar	15	1	0	0	0	0	15	credit
Sum		105	6	44	15	7	24	15	

Semester III

Lp	Module	No	ECTS	No of hours					Credit type
				L	Con	Lab	P	S	
1	Mechatronic systems	30	2	15	15	0	0	0	exam
2	Mechanics of modern materials	30	2	15	0	0	15	0	exam
3	Theory of continuous systems	15	1	9	0	0	6	0	credit
4	Doctoral seminar	15	1	0	0	0	0	15	credit
5	Development and application of research projects	15	1	8	0	0	7	0	credit
Sum		105	7	47	15	0	28	15	

Semester IV

Lp	Module	No	ECTS	No of hours					Credit type
				L	Con	Lab	P	S	
1	Control of dynamics systems	15	1	9	0	0	6	0	credit
2	Elective Course I	30	1	15	0	0	15	0	credit
3	Doctoral seminar	15	1	0	0	0	0	15	credit
4	Mathematical methods of mechanics	15	1	8	7	0	0	0	credit
Sum		75	4	32	7	0	21	15	

Semester V

Lp	Module	No	ECTS	No of hours					Credit type
				L	Con	Lab	P	S	
1	Elective Course II	30	1	15	0	0	15	0	credit
2	Doctoral seminar	15	1	0	0	0	0	15	credit
3	IT tools in scientific research	30	2	10	10	0	10	0	credit
Sum		75	4	25	10	0	25	15	

Semester VI

Lp	Module	No	ECTS	No of hours					Credit type
				L	Con	Lab	P	S	
1	Doctoral seminar	15	1	0	0	0	0	15	credit
2	Business strategy in science	30	2	15	15	0	0	0	credit
3	Elective Course III	15	1	15	0	0	0	0	credit
Sum		60	4	30	15	0	0	15	

Semester VII

Lp	Module	No	ECTS	No of hours					Credit type
				L	Con	Lab	P	S	
1	Doctoral seminar	15	1	0	0	0	0	15	credit
2	Elective Course IV	5	1	5	0	0	0	0	credit
Sum		20	2	5	0	0	0	15	

Semester VIII

Lp	Module	No	ECTS	No of hours					Credit type
				L	Con	Lab	P	S	
1	Doctoral seminar	15	1	0	0	0	0	15	credit
	Sum	15	1	0	0	0	0	15	

Elective course I

Lp	Module	No	No of hours					Credit type
			L	Con	Lab	P	S	
1	Signal processing and analysis	30	15			15		credit
2	Selected problems of biomechanics	30	15			15		credit

Elective course II

Lp	Module	No	No of hours					Credit type
			L	Con	Lab	P	S	
1	Optimization of structural components	30	15			15		credit
2	Algorithms and programming	30	15			15		credit

Elective course III

Lp	Module	No	No of hours					Credit type
			L	Con	Lab	P	S	
1	Didactics of higher education	15	15					credit
2	Ethics in didactics and research	15	15					credit

Elective course IV

Lp	Module	No	No of hours					Credit type
			L	Con	Lab	P	S	
1	Intellectual property rights	5	5					credit
2	Mechanics history	5	5					credit