

Study Plan for Doctoral Study Program Transport Means and Infrastructure

(valid from 1. 9. 2019)

Compulsory Courses

Dept./Course Abbreviation	Course	Number of lectures +consultations/ semester	Compl.	Recommended semester
KID/RAM11	Applied Mathematics I doc. Ing. Karel Greiner, Ph.D. prof. PhDr. RNDr. Zdeněk Půlpán, CSc.	36+0	Exam	1.
KID/RAM22	Applied Mathematics II doc. Ing. Karel Greiner, Ph.D. prof. PhDr. RNDr. Zdeněk Půlpán, CSc.	36+0	Exam	2.
KDPD/RMVP1	Methods of Scientific Work doc. Ing. Petr Voltr, Ph.D.	6+0	Exam	2.

Compulsory Options (to choose 2 courses at least from subjects for the specialization)

Specialization	Dept./Course Abbreviation	Course	Number of lectures +consultations/ semester	Compl.	Recommended semester
Transport Means	KDPD/A4BJV	Safety of Vehicle Operation doc. Ing. Petr Voltr, Ph.D. prof. Ing. Bohumil Culek, CSc. Ing. Jan Pokorný, Ph.D.	20+0	Exam	4.
	KDPD/AIVC	Vehicle–infrastructure Interaction doc. Ing. Michael Lata, Ph.D. doc. Ing. Jan Krmela, Ph.D.	24+0	Exam	4.
	KDPD/ASZTV	Selected Areas of Vehicle Theory doc. Ing. Michael Lata, Ph.D. Ing. Jan Pokorný, Ph.D.	24+0	Exam	3.
	KMMCS/AAME	Applied Mechanics doc. Ing. Petr Tomek, Ph.D. Ing. Aleš Hába, Ph.D.	24+0	Exam	3.
	KMMCS/ANMT4	Nonlinear Mechanics and Theory of Plasticity prof. Ing. Petr Paščenko, Ph.D.	24+0	Exam	4.
	KMMCS/AEAM3	Experimental Analysis, Measurement Methods doc. Ing. Bohumil Culek, Ph.D. prof. Ing. Jaroslav Menčík, CSc. Ing. Martin Kohout, Ph.D.	26+0	Exam	3.
	KMMCS/AMSM	Limit States of Materials prof. Ing. Eva Schmidová, Ph.D.	24+0	Exam	3.
	KMMCS/ASZ19	Reliability and Lifetime doc. Ing. Bohumil Culek, Ph.D. prof. Ing. Jaroslav Menčík, CSc. prof. Ing. Bohumil Culek, CSc.	24+0	Exam	3.

Specialization	Dept./Course Abbreviation	Course	Number of lectures +consultations/ semester	Compl.	Recommended semester
Electrotechnical and Electronic Systems in Transport	KEEZ/ATS19	Traction Systems prof. Ing. Jaroslav Novák, CSc. doc. Ing. Stanislav Gregora, Ph.D.	20+0	Exam	2.
	KEEZ/AEK19	Electromagnetic Compatibility prof. Ing. Jaroslav Novák, CSc.	20+0	Exam	2.
	KEEZ/A3REP	Control of Electrical Drives prof. Ing. Jaroslav Novák, CSc.	20+0	Exam	3.
	KEEZ/ABKRS	The Safety-critical Control Systems in Transport doc. Ing. Aleš Filip, CSc. Ing. Jan Ouředníček, Ph.D.	20+0	Exam	2.
	KEEZ/ATSPE	Technical Systems for Electromobility prof. Ing. Jaroslav Novák, CSc.	20+0	Exam	3.
	KMMCS/ASZ19	Reliability and Lifetime doc. Ing. Bohumil Culek, Ph.D. prof. Ing. Jaroslav Menčík, CSc. prof. Ing. Bohumil Culek, CSc.	24+0	Exam	3.

Specialization	Dept./Course Abbreviation	Course	Number of lectures +consultations/ semester	Compl.	Recommended semester
Transport Structures	KDS/AMNDS	Modern Methods of Designing Transport Constructions prof. Ing. Karel Pospíšil, Ph.D., MBA doc. Ing. Vladimír Doležel, CSc.	24+0	Exam	3.
	KDS/AMRDS	Modernisation and Reconstruction of Transport Structures prof. Ing. Karel Pospíšil, Ph.D., MBA doc. Ing. Vladimír Doležel, CSc.	24+0	Exam	2.
	KDS/ADMS4	Diagnostics of Bridge Constructions doc. Ing. Bohumil Culek, Ph.D.	24+0	Exam	4.
	KDS/AMBK4	Modelling of Concrete Structures doc. Ing. Bohumil Culek, Ph.D. doc. Ing. Jiří Pokorný, CSc. Ing. Ladislav Řoutil, Ph.D.	24+0	Exam	4.
	KMMCS/AAME	Applied Mechanics doc. Ing. Petr Tomek, Ph.D. Ing. Ladislav Řoutil, Ph.D.	24+0	Exam	3.
	KMMCS/ANMT4	Nonlinear Mechanics and Theory of Plasticity prof. Ing. Petr Paščenko, Ph.D. doc. Ing. Vladimír Doležel, CSc.	24+0	Exam	4.
	KMMCS/AMSM	Limit States of Materials prof. Ing. Eva Schmidová, Ph.D. doc. Ing. Vladimír Doležel, CSc.	24+0	Exam	3.
	KMMCS/ASZ19	Reliability and Lifetime doc. Ing. Bohumil Culek, Ph.D. prof. Ing. Jaroslav Menčík, CSc. prof. Ing. Bohumil Culek, CSc.	24+0	Exam	3.

Optional Courses

Dept./Course Abbreviation	Course	Number of lectures +consultations/ semester	Compl.	Recommended semester
	English for Transport I - IV Mgr. Yveta Linhartová, Ph.D.	0+24	Exam	1. + 2.
	German for Transport I - IV Mgr. Ilona Bourová	0+24	Exam	1. + 2.
	Russian for Transport I - IV Mgr. Radka Švadláková, Ph.D.	0+24	Exam	1. + 2.
KMMCS/APKM1	Failure of Construction Materials prof. Ing. Eva Schmidová, Ph.D. prof. Ing. Jaroslav Menčík, CSc. doc. Ing. Pavel Švanda, Ph.D. doc. Ing. Vladimír Doležel, CSc.	24+0	Exam	4.
KMMCS/ADTSK	Thin-walled Shell Structures prof. Ing. Petr Paščenko, Ph.D.	26+0	Exam	3.
KMMCS/ADDRK	Diagnostics and Quality Control doc. Ing. Pavel Švanda, Ph.D. Ing. Jakub Vágner, Ph.D.	20+0	Exam	4.
KMMCS/ADSSV	Special Road Vehicles and Superstructures of Vehicles doc. Ing. Petr Tomek, Ph.D. doc. Ing. Pavel Švanda, Ph.D. doc. Ing. Miroslav Tesař, CSc.	24+0	Exam	4.
KEEZ/ADCZS	Digital Signal Processing prof. Ing. Vladimír Schejbal, CSc. Ing. Dušan Čermák, Ph.D.	20+0	Exam	1.
KEEZ/ADVLE	Microwave Engineering prof. Ing. Vladimír Schejbal, CSc. Ing. Dušan Čermák, Ph.D.	20+0	Exam	3.
KDPD/ADVPE	Selected Issues of Ecology in Transport doc. Ing. Michael Lata, Ph.D. doc. Ing. Marie Sejkorová, Ph.D.	24+0	Exam	4.
KDS/AAGE2	Applied Geotechnics doc. Ing. Vladimír Doležel, CSc. Ing. Aleš Šmejda, Ph.D.	24+0	Exam	2.