## Recomended pass through the study plan

# Name of the pass: SpaceMaster 2020-22 - Passage through study

Faculty/Institute/Others: Faculty of Electrical Engineering

Department:

Pass through the study plan: Erasmus Mundus Master Course - SpaceMaster 2020-22

Branch of study guranteed by the department: Welcome page

Guarantor of the study branch:

Program of study: Cybernetics and Robotics Type of study: Follow-up master full-time

Note on the pass:

Coding of roles of courses and groups of courses:

P - compulsory courses of the program, PO - compulsory courses of the branch, Z - compulsory courses, S - compulsory elective courses, PV - compulsory elective courses, F - elective specialized courses, V - elective courses, T - physical training courses

Coding of ways of completion of courses (KZ/Z/ZK) and coding of semesters (Z/L):

KZ - graded assesment, Z - assesment, ZK - examination, L - summer semester, Z - winter semester

### Number of semester: 1

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
BE3M35SPI	Space Instruments	Z,ZK	8	2P+2S	L	Р
BE3M35SPP	Space Physics	Z,ZK	7	2P+2S	Z	Р
BE3M35SSD	Spacecraft System	Z,ZK	8	2P+2S	Z	Р
BE3M35TSS	The Solar System	Z,ZK	7	2P+2S	Z	Р

#### Number of semester: 2

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
BE3M35SPC	Space Communication	Z,ZK	8	2P+2S	Z	Р
	Compulsory optionally subjects BE3M35ELS,BE3M35MESA, (see the list of groups below)	Min. cours.				
2020_SPACEMASTER_PV		3	Min/Max			5)./
		Max. cours.	22/40			PV
		6				

### Number of semester: 3

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
BE3M35CSA	Control Systems for Aircraft and Spacecraft	Z,ZK	7	2P+2L	Z	Р
BE3M35IDP	Individuální projekt	Z	8	0P+6S	Z	Р
BE3M35SSM	Space systems, modeling and identification	Z,ZK	7	4P+2C	Z	Р

### Number of semester: 4

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
BE3M35DIP	Diploma Thesis	Z	30	22S	L	Р
BE3M35ORC	Optimal and robust control design	Z,ZK	8	2P+2C	L	Р

# List of groups of courses of this pass with the complete content of members of individual groups

Kód Name of the group of group (for specificatio		o of courses and codes of members of this ation see here or below the list of courses)		Completion		Credit	s Scope	Semester	Role		
					Min.	cours.					
2020 SPACEWASTER PV						3	Min/Ma	ıx		DV.	
ZUZU_SPACEIVIA	4SIEK_FV	Compulsory optionally subjects		Max	. cours.	22/40			PV		
						6					
BE3M35ELS	Electronics	tronics in Space BE3		3M35MESA Microcomputer Engineering with S		BE3M35P		Polar Atmosp	nere		
BE3M35PSA	Propulsion with Space Applicatio		BE3M35SEI	Spacecraft Environment Interacti	BE3M35SIS Swedish		Swedish for Ir	for International Studen			

## List of courses of this pass:

Code	Name of the course	Completion	Credits
BE3M35CSA	Control Systems for Aircraft and Spacecraft	Z,ZK	7
System Approach.	Object, System, Model. Dynamic Systems Continuous and Discrete Time, Qualitative Analysis of Systems. Poincare Map, Chaos. Lir	near Systems. Syst	em Stabilit
Uncertai	inty and Robustness. Controllability and Observability. State Feedback, State Injection, Duality. Stochastic Systems, Realization of St	ochastic Processes	S.
BE3M35DIP	Diploma Thesis	Z	30
•	comprehensive work for the Master's degree study programme. A student will choose a topic from a range of topics related to his or		
	by branch department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehenses.	ensive final examin	
BE3M35ELS	Electronics in Space	Z,ZK	8
BE3M35IDP	Individuální projekt	Z	8
Independent work	k in the form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be speci	fied by branch dep	artment or
	branch departments. The project will be defended within the framework of a subject.		
BE3M35MESA	Microcomputer Engineering with Space Applications	Z,ZK	7
BE3M35ORC	Optimal and robust control design	Z,ZK	8
Mu-synthesis as Standing a little bit	LQ/LQG optimal control trading off the performance and the effort, while minimizing Hinf norm shifts the focus to robustness agains an extensions to Hinf optimal control design that take the structure of the uncertainty into consideration represents a very powerfull taside yet being useful in space missions are the methods for time-optimal and suboptimal control. As a self-contained add-on to the organization and linear matrix inequalities (LMI) will be made, as these constitute a very elegant theoretial and a powerful computational to introduced tasks in optimal and robust control.	cool for robust controduction	ol design. to the top
BE3M35PAT	Polar Atmosphere	Z,ZK	8
BE3M35PSA	Propulsion with Space Applications	Z,ZK	7
BE3M35SEI	Spacecraft Environment Interactions	Z,ZK	7
BE3M35SIS	Swedish for International Students 1	Z,ZK	3
BE3M35SPC	Space Communication	Z,ZK	8
BE3M35SPI	Space Instruments	Z,ZK	8
BE3M35SPP	Space Physics	Z,ZK	7
BE3M35SSD	Spacecraft System	Z,ZK	8
BE3M35SSM	Space systems, modeling and identification	Z,ZK	7
BE3M35TSS	The Solar System	Z.ZK	7

For updated information see <a href="http://bilakniha.cvut.cz/en/f3.html">http://bilakniha.cvut.cz/en/f3.html</a> Generated: day 2025-11-20, time 19:32.