



1. Subject name	Selected chapters from astrodynamics				
2. Subject name in Hungarian	Válogatott fejezetek az asztrodinamikából (PHD)				
3. Code	BMEKOMED019	4. Evaluation type	exam grade	5. Credits	2
6. Weekly contact hours	2 (0) Lecture	0 (0) Practice	0 (0) Lab		
7. Curriculum	PhD Programme	8. Role	Specific course		
9. Working hours for fulfilling the requirements of the subject					60
Contact hours	28	Preparation for seminars	7	Homework	7
Reading written materials	7	Midterm preparation	0	Exam preparation	11
10. Department	Department of Railway Vehicles and Vehicle System Analysis				
11. Responsible lecturer	Dr. Béda Péter				
12. Lecturers	Dr. Béda Péter				
13. Prerequisites					
14. Description of lectures					
Coordinate systems of the space mechanics, time measurement. The two body problem. Elliptical planet orbits, orbit geometry, orbit elements. Near Earth orbits, solar synchronous orbits, geostationary orbits, elliptical geosynchronous orbits. large satellites: position dynamics. Dynamics of orbiting rigid bodies. Position stability of satellites. Girosopical stabilization. Double satellite systems, satellite systems.					
15. Description of practices					
16. Description of labortory practices					
17. Learning outcomes					
A. Knowledge <ul style="list-style-type: none">• Methods of the space mechanics. B. Skills <ul style="list-style-type: none">• Description of motion of planets, satellites, rockets. Model building. C. Attitudes <ul style="list-style-type: none">• Being open to understand and learn novelties on that given domain. D. Autonomy and Responsibility <ul style="list-style-type: none">• Evaluation and choice of optimal model element.					
18. Requirements, way to determine a grade (obtain a signature)					
Semester note upon succesful realisation of the homework and an oral exam.					
19. Opportunity for repeat/retake and delayed completion					
Essay secondary deadlines precised in the lessons requirements.					
20. Learning materials					
Effective date	27 November 2019	This Subject Datasheet is valid for		Inactive courses	