… The Basics of Space Projects …
- COURSE SYLLABUS

1.	**Course title:** *The Basics of Space Projects*	
2.	**Lecturer:** *dr inż. Konrad R. Skup*	
3.	**Field, type and level of studies, year of study:** *Space engineering, management all years of study*	
4.	**Course character:** *Monographic lecture (lecture and individual presentations)*	
5.	**Teaching method:** *traditional or on-line*	
6.	**Language:**	*English*
7.	**Course type and number of hours:** *Lecture 30h*	
8.	**Estimated load of student's independent work:**	*10h*
9.	**Total workload and number of ECTS points:**	*40h, 3 ECTS*
10.	**Brief description and focus of the course:** 1. *General information about space projects (organization, sources for funding, classification, phases, milestones, models, …).* 2. *Environmental requirements, challenges, constraints and tests (vacuum, temperature, radiation, vibrations, EMC, …).* 3. *Satellite payload and platform (difference, satellite subsystems, instruments, communication, ground control, …).* 4. *Project assurance and project quality (missions' classification, design rules, documentation, analysis, components, materials, processes, reliability…).* 5. *Current trends (Space 4.0, commercial space industry, opportunities, risks, …).* 6. *Examples of the missions/instruments where the characteristic elements of points 1, 2, 3, 4 and 5 are clearly visible.*	
11.	**References:** *"Handbook of Space Technology", Wilfried Ley / Klaus Wittmann / Willi Hallmann*	
12.	**Prerequisites:** *Basic level of space engineering (physics, electronics, mechanics, optics, …)*	

13.	**Educational outcomes:**	**PQF level 8 codes:**
	Knowledge: *the course gives practical knowledge of preparation and realization of space projects. The lecture can help future project leaders, space instrument leaders, scientists involved in space projects, project managers, system engineers, PA/QA engineers.*	*P8S_WG, P8S_WK*
	Practical Skills: *the course gives general information about space projects with a few selected space projects discussed as examples.*	*P8S_UW, P8S_UK, P8S_UO*
	Social Skills:	
14.	**Evaluation of the educational outcomes:**	
	individual presentation on selected space project or own space project idea; pass/fail	
15.	**Criteria to complete the course:**	
	at least 80% attendance plus individual presentation on selected space project	
16.	**Contact the lecturer:**	
	kskup@cbk.waw.pl	