

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject General knowledge of the aircraft 1		Code 1010601111010637507
Field of study Aerospace Engineering	Profile of study (general academic, practical) general academic	Year /Semester 1 / 1
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 1 Classes: - Laboratory: - Project/seminars: -		No. of credits 2
Status of the course in the study program (Basic, major, other) other		(university-wide, from another field) university-wide
Education areas and fields of science and art technical sciences Technical sciences		ECTS distribution (number and %) 2 100% 2 100%
Responsible for subject / lecturer: dr inż. Krzysztof Szymaniec email: krzysztof.szymaniec@put.poznan.pl tel. +48 61 665 2604 Faculty of Transport Engineering ul. Piotrowo 3 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	In the field of airframe assemblies, control systems, hydraulic, pneumatic, fuel, air-conditioning and emergency systems. [PRK4]
2	Skills	able to apply the scientific method in solving problems [PRK4]
3	Social competencies	knows the limits of his knowledge and skills; can work in a group [PRK4]
Assumptions and objectives of the course: familiarize the student with the construction of the aircraft and its executive teams		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. has detailed knowledge related to selected issues in the field of construction of manned and unmanned aerial vehicles, including on-board equipment and their main components - [K1A_W13]		
2. has broadened knowledge necessary for understanding of profile subjects and specialist knowledge about construction, methods of construction, manufacturing, operation, air traffic management, security systems, impact on the economy, society and the aviation and aerospace environment - [K1A_W22]		
Skills:		
1. is able to analyze objects and technical solutions, is able to search in catalogs and on manufacturers' websites ready components of machines and devices, including means and transport and storage devices, assess their suitability for use in their own technical and organizational projects - [K1A_U09]		
2. can draw a schematic and a simple machine element in accordance with the principles of technical drawing - [K1A_U16]		
3. is able to develop a manual for servicing and repairing a simple machine or its subassemblies from the machine group covered by the selected specialty - [K1A_U18]		
Social competencies:		
1. understands the need to learn throughout life; can inspire and organize the learning process of other people - [K1A_K01]		
2. is aware of the social role of a technical university graduate, and especially understands the need to formulate and communicate to the public, in particular through mass media, information and opinions on the achievements of technology and other aspects of engineering activities; makes efforts to provide such information and opinions in a generally understandable way - [K1A_K07]		

Assessment methods of study outcomes		
written exam		
Course description		
The ability to classify the construction systems of airframe planes and helicopters, characterize the applied structural solutions of the main airframe assemblies. Ability to characterize control systems, hydraulic, pneumatic, fuel, air-conditioning and emergency systems. The ability to interpret the indications of on-board instruments to assess the technical condition of an aircraft and its systems		
Basic bibliography:		
1. Cichosz E., Konstrukcja i praca płatowca, WAT, Warszawa 1986 r.		
2. Olejnik A., Budowa statków powietrznych, WAT 1984 r		
3. Błaszczak J., Konstrukcja samolotów, cz.I., Obciążenia zewnętrzne, WAT, Warszawa 1984 r.		
4. Danilecki S., Projektowanie samolotów, Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2000 r.		
5. Polak Z., Rypulak A., Bilski J., Awionika, przyrządy i systemy pokładowe, WSOSP, Dęblin 1999 r.		
6. Spitzer Cary R., The Avionics Handbook, AvioniCon Inc, Williamsburg 2001 r.		
7. Kazana J., Lipski J., Budowa i eksploatacja pokładowych przyrządów lotniczych, WKiŁ, Warszawa 1983 r.		
Additional bibliography:		
Result of average student's workload		
Activity		Time (working hours)
Student's workload		
Source of workload	hours	ECTS
Total workload	50	2
Contact hours	18	1
Practical activities	0	0