POZNAN UNIVERSITY OF TECHNOLOGY

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Flight communication [S2AiR1E-ISLiSA>SKwL]

Course

Field of study
Automatic Control and Robotics

Year/Semester
2/3

Area of study (specialization)
Smart Aerospace and Autonomous Systems

Profile of study
general academic

Level of study
second-cycle

Course offered in
english

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
15

Laboratory classes
0

Other (e.g. online)
0

Tutorials
0

Projects/seminars
0

Number of credit points

3,00

Coordinators

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Lecturers

Prerequisites

Knowledge: Student starting this module should have basic knowledge regarding signal processing. Skills: He/she should have skills allowing solving basic problems related to communication systems and should understand the need to extend his/her competences. Social competencies: Student should show attitudes as honesty, responsibility, perseverance, curiosity, creativity, manners, and respect for other people.

Course objective

The objective of the lectures is to teach the accurate and concise use of correct radio phraseology. This should enhance safety and efficiency of the flight. Students learn the basic concepts of communication theory and procedures. The classes takes the student from the basic principles of VHF and HF communication to its application in the VFR (Visual Flight Rules) and IFR (Instrument Flight Rules) environment. The course cover all aspects of radio telephony phraseology in the aerodrome, approach, area, and radar control environment. The distress and urgency procedures as well as the procedures to follow in the event of a communication failure are also covered.

Course-related learning outcomes

Knowledge

1. has extensive and in-depth knowledge in selected areas of physics useful for formulating and solving tasks connected with communication systems - [K_W1]
2. has well-established theoretical knowledge related to flight communication systems - [K_W7]
3. has theoretical knowledge related to flight communication procedures- [K_W11]
Skills
1. is able to acquire, integrate, interpret and evaluate information from literature, databases and www sources on flight communication systems - [K_U1]
2. is able to apply control and planning methods to solve engineering as well as scientific problems - [K_U9]
3. is able to integrate knowledge coming both from different sub-domains of computer sciences and communication systems to formulate and solve engineering tasks connected with use of air systems - [K_U10]
4. is able to carry out critical analysis of the used flight communication procedures - [K_U19]
5. is able to evaluate usefulness of methods and tools for solving a communication problem - [K_U22]
Social competences
1. Student understands the need to learn throughout life; can inspire and organize the learning process of other – [K_K1]
2. Student is able to interact and work in a group, assuming different roles in it – [K_K3]
3. Student can think and act in a creative and enterprising way - [K_K5]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:
Formative assessment:
Based on answers to question in the written exam.

Total assessment:
a) verification of assumed learning objectives related to lectures:
i. evaluation of acquired knowledge on the basis of the written exam,
ii. discussion of correct answers in the exam,
iii. monitoring students activities during classes,

Additional elements cover:
i. discussing more general and related aspects of the class topic,

Programme content

1. Fundamental communication systems equipment
2. Basic definitions
3. Common abbreviations
4. General operating procedures
5. VFR/IFR communications
a) aerodrome control
b) approach control
c) general radar phraseology and area control
6. Distress and urgency procedures

Teaching methods

Learning methods:
1. Lectures: multimedia presentation, presentation illustrated with examples presented on black board, solving tasks, multimedia showcase, discussion.

Bibliography

Basic
1. Communications, JAA ATPL Training, Jeppesen Sanderson Inc, 2004
2. Manual of radiotelephony, Doc 9432 ICAO, Fourth edition 2007
Additional
1. Annex 10 to the Convention on ICAO - Aeronautical telecommunications Vol II, Sixth edition October 2001

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	20	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	55	2,00