COURSE DESCRIPTION CARD - SYLLABUS

Course name

History of progress in aviation and cosmic

Course

Field of study

Aviation and cosmonautics

Year/Semester

1/1

Area of study (specialization)

Profile of study

general academic

Level of study

Second-cycle studies

Course offered in

polish

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

1

Lecturers

Responsible for the course/lecturer:

dr inż. Wojciech Karpiuk

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tel. 616475993

Wydział Inżynierii Lądowej i Transportu

ul. Piotrowo 3, 61-138 Poznań

Responsible for the course/lecturer:

Prerequisites

Knowledge - Student has the basic knowledge necessary to understand social, economic, legal and other non-technical conditions of engineering activities.

Skills - Student is able to obtain information from literature, databases and other, properly selected sources.

Social competencies - Student understands the need for lifelong learning, can inspire and organize the learning process of other people, understands the need and ability to self-education, shows the ability to work in a team.

Course objective

The aim of the course is to familiarize students with the history of aviation and astronautics in the direction of technical aspects

Course-related learning outcomes

Knowledge

has detailed knowledge related to selected issues in the field of manned and unmanned spacecraft construction, in the field of on-board equipment, control systems, communication and recording systems, life support systems, satellite navigation systems, teletection, image recognition, automation of individual systems

has basic knowledge of the structure of the universe, in particular stars and the solar system, phenomena occurring in them, recognition of the most important objects in the sphere, more important issues and problems in satellite technology, as well as space research, principles of operation of basic types of electromagnetic radiation recorders

Skills

can obtain information from literature, the Internet, databases and other sources. Can integrate the obtained information, interpret and draw conclusions from it, and create and justify opinions

can analyze objects and technical solutions, can 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

Social competences

is aware of the importance and understands the non-technical aspects and effects of engineering activities, including its impact on the environment, and the related responsibility for decisions made

understands the need for lifelong learning; can inspire and organize the learning process of other people

is aware of the social role of a technical university graduate, and especially understands the need to formulate and convey to the society, in particular through the mass media, information and opinions on technological achievements and other aspects of engineering activities; makes efforts to provide such information and opinions in a generally comprehensible manner

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Passing the lecture - one-choice test

Programme content

The earliest attempts, aviation pioneers - the first engine flights, airships, World War I, the beginnings of aviation, inter-war aviation, World War II, jets, rotorcraft, air force 1945 - 1960, bomber time, cold war

1960 - 1990, transport aviation after 1960 , advances in cosmonautics, military aviation 9. Inventory management in aviation companies

Teaching methods

Informative (conventional) lecture (providing information in a structured way) - may be of a course (introductory) or monographic (specialist) character

Bibliography

Basic

1. Historia lotnictwa, od maszyny latającej Leonarda da Vinci do podboju kosmosu - Riccardo Niccoli

2. Historia lotnictwa w Polsce - wielu autorów, wydawnictwo Carta blanca 3. Beier F.J., Rutkowski K.: Logistyka. SGH, Warszawa 1993.

3. Historia Lotnictwa. Od Pierwszych Dwupłatowców Po Podbój Kosmosu - David Simons

Additional

1. Dzieje lotnictwa - Jim Winchester

2. Historia lotnictwa - Robert Jackson

3. FDR and Civil Aviation - Alan P. Dobson

Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,0
Classes requiring direct contact with the teacher	20	1,0
Student's own work (literature studies, preparation for test) [1]	5	0,0

[1] delete or add other activities as appropriate