| STUDY MODULE DESCRIPTION FORM  |                            |   |   |   |  |  |
|--|----------------------------|---|---|---|--|--|
| Name of the module/subject<br>Aircraft Diagnostics   |                            |   |   | Code<br>1010621221010623535                 |  |  |
| Field of   | study                      |   | Profile of study<br>(general academic, practical)<br>(brak) | Year /Semester                              |  |  |
| Elective   | e path/specialty           | craft Transport   | Subject offered in:<br>Polish                               | Course (compulsory, elective)<br>obligatory |  |  |
| Cycle o  | f study:                   |   | Form of study (full-time,part-time)                         |   |  |  |
| Second-cycle studies   |                            |   | full-t  | full-time                                   |  |  |
| No. of h   | iours                      |   |   | No. of credits                              |  |  |
| Lectu  | re: 2 Classes              | s: 1 Laboratory: -  | Project/seminars:   | - 3   |  |  |
| Status o   | of the course in the study | eld)  |   |   |  |  |
|  |                            | (brak)  |   |   |  |  |
| Educati  | on areas and fields of sci | ence and art  |   | ECTS distribution (number<br>and %)         |  |  |
| techr  | nical sciences             |   |   | 3 100%                                      |  |  |
| Resp   | onsible for subje          | ect / lecturer:   |   | 1   |  |  |
| dr inż. Grzegorz Szymański<br>email: grzegorz.m.szymanski@put.poznan.pl<br>tel. (61) 665 20 23<br>Faculty of Machines and Transport<br>ul. Piotrowo 3, 60-965 Poznań   |                            |   |   |   |  |  |
| Prere  | equisites in term          | s of knowledge, skills an   | d social competencies:                                      |   |  |  |
| 1  | Knowledge                  | The student has a basic knowledge of aircraft structure, and basic knowledge of modeling  |   |   |  |  |
| 2  | Skills                     | The student is able to solve specific problems arising in technical systems.  |   |   |  |  |
| 3  | Social competencies        | The student is able to work in a group, taking in her various roles.<br>Student is able to prioritize important in solving the tasks posed in front of him. |   |   |  |  |
| Assu   | mptions and obj            | ectives of the course:  |   |   |  |  |
| Learnii  | ng the methods and pr      | actical skills of problem solving in  | the exploitation of aircraft.                               |   |  |  |
|  | Study outco                | mes and reference to the  | educational results for                                     | a field of study                            |  |  |
| Knov   | vledge:                    |   |   |   |  |  |
| 1. Has a basic knowledge of IT systems, the types of information systems and their description, the amount of information, coding and data compression, computer networks, allocation of information resources and its flow, means and standards for the transmission of information, the uses of information technology in transport, selected information systems [K1A, W15] |                            |   |   |   |  |  |
| Skills   | s:                         |   |   |   |  |  |
| 1. Is able to obtain information from the literature, internet, databases and other sources in Polish and English. Can integrate the information to interpret and learn from them, create and justify opinions - [K1A_U01]   |                            |   |   |   |  |  |
| 2. Is able to communicate using a variety of techniques in a professional environment and other environments using the formal record of the design, technical drawings, concepts and definitions in the scope of the study area [K1A_U02]  |                            |   |   |   |  |  |
| Social competencies:   |                            |   |   |   |  |  |
| 1. Understands the need and knows the possibilities of lifelong learning, knows the need for acquiring new knowledge for professional development - [K1A_K01]  |                            |   |   |   |  |  |
| 2 Is able to think and act in an entrepreneurial manner, make decisions, work for the development of the employer and the society - [K1A_K07]  |                            |   |   |   |  |  |
| 3 Is aware of the transfer of knowledge to society, takes steps to ensure that the information is understandable, presents different solutions and points of view - [K1A_K08]  |                            |   |   |   |  |  |

# Assessment methods of study outcomes

#### Partial evaluation:

- assessment of the student activity during lectures
- individual assessment of the laboratory tasks.

Final evaluation:

- average rating taking into account assessment of the student activity during lectures and a written final test
- average rating taking into account student's activity in the laboratory classes and partial grades.

#### **Course description**

Subject matter, scope and purpose of research, the theory of exploitation. Relationship between exploitation systems and external systems. System Use: models of vehicles, usable database and its structural model, the identification system use, indicators of system use. Operating system: operating models of vehicles operating position, the base Operating unit and its structural model, operating system identification, evaluation of operating system, the influence of the intensity of service reliability and readiness of vehicles. The supplying and directing the exploitation of aircraft. Failure Analysis of selected elements of aircraft.

### Basic bibliography:

1. Lewitowicz J. i in. Podstawy Eksploatacji Statków Powietrznych Tom 1-5 Wydawnictwo ITWL

## Additional bibliography:

1. Niziński S.: Elementy eksploatacji obiektów technicznych. Wydawnictwo Uniwersytetu Warmińsko-Mazurskiego, Olsztyn, 2000.

| Result of average student's workload |       |                         |  |  |
|--------------------------------------|-------|-------------------------|--|--|
| Activity                             |       | Time (working<br>hours) |  |  |
| 1. Preparation for lectures          | 1     |                         |  |  |
| 2. Participation in the lecture      | 30    |                         |  |  |
| 3. Fixation of the lecture           | 2     |                         |  |  |
| 4. Consultation lecture              | 1     |                         |  |  |
| 5. Exam Preparation                  | 3     |                         |  |  |
| 6. Participation in the exam         | 1     |                         |  |  |
| 7. Prepare for Training              | 1     |                         |  |  |
| 8. Participation in exercises        | 15    |                         |  |  |
| 9. Consultation Exercise             | 1     |                         |  |  |
| 10. Preparing to pass                | 3     |                         |  |  |
| 11. Participation in completing      | 1     |                         |  |  |
| Student's workload                   |       |                         |  |  |
| Source of workload                   | hours | ECTS                    |  |  |
| Total workload                       | 61    | 3                       |  |  |
| Contact hours                        | 49    | 3                       |  |  |
| Practical activities                 | 0     | 0                       |  |  |