

(pieczęć wydziału)

**COURSE DESCRIPTION**

| <b>1. Course title:</b> FINAL PROJECT   |  | <b>2. Course code:</b> FP |                  |                |
|---|--|---------------------------|------------------|----------------|
| <b>3. Validity of course description:</b> 2018/2019   |  |                           |                  |                |
| <b>4. Level of studies:</b> first degree  |  |                           |                  |                |
| <b>5. Model of studies:</b> stationary  |  |                           |                  |                |
| <b>6. Field of study:</b> INFORMATICS   |  |                           |                  |                |
| <b>7. Profile of studies:</b> general academic  |  |                           |                  |                |
| <b>8. Programme:</b> ALL  |  |                           |                  |                |
| <b>9. Semester:</b> 7   |  |                           |                  |                |
| <b>10. Faculty teaching the course:</b> Faculty of Automatic Control, Electronics and Computer Science, Institute of Informatics  |  |                           |                  |                |
| <b>11. Course instructor:</b> Supervisor of the master project  |  |                           |                  |                |
| <b>12. Course classification:</b> general   |  |                           |                  |                |
| <b>13. Course status:</b> obligatory  |  |                           |                  |                |
| <b>14. Language:</b> English  |  |                           |                  |                |
| <b>15. Pre-requisite qualifications:</b> Subjects related to the title of the project. It is assumed that before the implementation of the engineering final project, the student has at least basic preparation in the field of subjects taught during studies, knows the appropriate programming tools and has detailed knowledge of subjects related to the title of the project   |  |                           |                  |                |
| <b>16. Course objectives:</b><br>During the implementation of the engineering final project, the student summarizes the knowledge acquired on many subjects during the studies and acquires the ability to solve the stated engineering problem and prepare the report. After completion of the engineering project and fulfillment of other formal requirements specified in the Study Regulations, the student may be admitted to the final exam. |  |                           |                  |                |
| <b>17. Description of learning outcomes:<sup>1</sup></b>  |  |                           |                  |                |
| Nr  | Learning outcomes description  | Method of assessment      | Teaching methods | Reference code |
| 1   | Student is familiar with the current state and the latest trends in the development of information technology. | Project report            | Project          | K1A_W13        |
| 2   | Student has elementary knowledge in the field of intellectual property protection.                             | Project report            | Project          | K1A_W20        |

<sup>1</sup> należy wskazać ok. 5 – 8 efektów kształcenia

|    |   |                     |         |                    |
|----|---|---------------------|---------|--------------------|
| 3  | Student can independently obtain information from literature, databases and other sources; can integrate the obtained information, make their interpretation, as well as draw conclusions and formulate and justify opinions. | Project report      | Project | K1A_U01            |
| 4  | Student can assess the usefulness of methods and IT tools and choose the right method and tools for the task.   | Project realization | Project | K1A_U21            |
| 5  | Student is able to develop documentation on the implementation of the engineering task and prepare a report including a discussion on task implementation and the results obtained.   | Project report      | Project | K1A_U03<br>K1A_U20 |
| 6  | Student is able to prepare and present a short presentation devoted to the results of the engineering task.   | Exam                | Project | K1A_U02<br>K1A_U04 |
| 7  | Student able to make an initial economic analysis of the activities undertaken in the implementation of the project   | Project report      | Project | K1A_U14            |
| 8  | Student can plan and organize individual work   | Project realization | Project | K1A_U31            |
| 9  | Student is ready to critically assess his/her knowledge and recognize the importance of knowledge in solving cognitive and practical problems   | Project report      | Project | K1A_K01            |
| 10 | Student is ready to responsibly perform professional roles and his own work, including the application of ethical rules of the profession and requirements from others, and care for profession's achievements and traditions | Project realization | Project | K1A_K03            |
| 11 | Student is ready to think and act in an entrepreneurial way and to show initiative and independence in professional activities  | Project realization | Project | K1A_K04            |
|    |   |                     |         |                    |

**18. Teaching modes and hours**

**Lecture / BA /MA Seminar / Class / Project / Laboratory:**

**0 / 0 / 0 / 0 / 30 / 0**

**19 Syllabus description:**

Classes include:

1. Analysis of the given engineering task.
2. Defining the project implementation schedule.
3. Literary studies.
4. Selection of programming tools and / or hardware.
5. Implementation of software and / or hardware.
6. Ongoing verification of the method chosen for solving the problem.
7. Results elaboration.
8. Presentation of the results.
9. Preparation of a report on the implementation of the project.

The engineering final project is of application nature. It can be carried out alone or in groups of several people. At the end of the course the student must present a report and present the results in the form of a multimedia presentation.

The report on the engineering project should fulfill requirements available at the web page of the Institute of Informatics.

**20. Exam:** yes (final exam)

**21. Primary sources:**

1. Literature related to the implemented project

**22. Secondary sources:**

1. Literature related to the implemented project

**23. Total workload required to achieve learning outcomes**

| Lp. | Teaching mode         | Contact hours / Student workload hours |
|-----|-----------------------|--|
| 1   | Lecture               | /                                      |
| 2   | Classes               | /                                      |
| 3   | Laboratory            | /                                      |
| 4   | Project               | 30/295                                 |
| 5   | Seminar               | /                                      |
| 6   | Other                 | 20/30                                  |
|     | Total number of hours | 50/325                                 |

**24. Total hours:** 375

**25. Numbers of ECTS:** 15

**26. Number of ECTS credits allocated for contact hours:** 2

**27. Number of ECTS credits allocated for in-practice hours (laboratory classes, projects):** 15

**26. Comments:**

Approved:

.....  
(date, Instructor's signature)

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(date, the Director of the Faculty Unit signature)