





## **COURSE SPECIFICATION**

| Course code                | full-time programme: | M#2-S1-ME-709 |
|----------------------------|----------------------|---------------|
|                            | part-time programme: |               |
| Course title in Polish     | Praca dyplomowa      |               |
| Course title in English    | Thesis               |               |
| Valid from (academic year) | 2024/2025            |               |

#### **GENERAL INFORMATION**

| Programme of study     | MECHANICAL ENGINEERING  |
|------------------------|---|
| Level of qualification | first-cycle   |
| Type of education      | academic  |
| Mode of study          | full-time programme   |
| Specialism             | all   |
| Department responsible | Department of Machine Design and Machining  |
| Course leader          | dr inż. Michał Skrzyniarz   |
| Approved by            | dr hab. Jakub Takosoglu, prof. PŚk, Dean of the<br>Faculty of Mechatronics and Mechanical Engineering |

### **COURSE OVERVIEW**

| Course type                   |                     | programme-specific |
|-------------------------------|---------------------|--------------------|
| Course status                 |                     | compulsory         |
| Language of instruct          | tion                | English            |
| Semester of                   | full-time programme | Semester VII       |
| delivery                      | part-time programme |                    |
| Pre-requisites                |                     |                    |
| Examination required (YES/NO) |                     | NO                 |
| ECTS value                    |                     | 15                 |

| Mode of instruction |                        | lecture | class | laboratory | project | seminar |
|---------------------|------------------------|---------|-------|------------|---------|---------|
| No. of hours        | full-time<br>programme |         |       |            |         |         |
| per semester        | part-time<br>programme |         |       |            |         |         |

#### LEARNING OUTCOMES



Projekt "Dostosowanie kształcenia w Politechnice Świętokrzyskiej do potrzeb współczesnej gospodarki" nr FERS.01.05-IP.08-0234/23



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| Category of outcome code Course learning outcomes |  |   | Corresponding<br>programme<br>outcome code       |  |  |
|---|--|---|--|--|--|
| Knowledge   | nowledge W01 The student has an organized knowledge of<br>intellectual property. |   |  |  |  |
|   | U01  | The student is capable of conducting literature studies and independently deepening their knowledge on the assigned topic.  | MiBM1_U03  |  |  |
| Skills  | U02  | MiBM1_U01<br>MiBM1_U03  |  |  |  |
|   | U03  | The student is capable of independently developing<br>a description of the implementation of an<br>engineering or research problem solution that is the<br>subject of their thesis.   | MiBM1_U03<br>MiBM1_U04<br>MiBM1_U10<br>MiBM1_U11 |  |  |
|   | K01  | The student understands the need for continuous<br>learning and personal development. They are ready<br>to critically evaluate their existing knowledge and<br>recognize the necessity of acquiring new<br>information. They independently supplement and<br>expand their knowledge in the field. | MiBM1_K03  |  |  |
| Competence  | K02  | K02 The student is aware of the need for creative and entrepreneurial thinking.   |  |  |  |
|   | K03  | The student is aware of the importance of communication in media presentations and the ability to present the results of the implementation of an engineering project, which is the subject of the thesis.  | MiBM1_K05  |  |  |

#### **COURSE CONTENT**

| Type of<br>instruction | Topics covered |
|------------------------|----------------|
| lecture                |                |







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The student dissertation is a crucial stage in the educational process at undergraduate level. It allows students to apply the knowledge they have acquired during their studies and to develop their practical and theoretical skills. While writing the dissertation, the student goes through all the stages of analysing an engineering problem. It begins with the correct formulation of the problem and then moves on to the description of a practical or theoretical solution. Working on the project requires students to find information from a variety of sources. Students use online libraries, equipment specifications and other materials. This enables them to delve into the topic and develop accurate solutions. Faced with various problems arising from the seminar work on the project, students learn to formulate logical and concise solutions. These are important skills that will be useful not only in the dissertation but also in their future careers. The dissertation is carried out under the supervision of an assigned supervisor. Meetings are held with the supervisor to discuss the aim of the project, the scope of the work and any technical, economic or organisational details. This is an important process that allows the work to be adapted to expectations and standards. The undergraduate dissertation involves the completion of an engineering project. It is a practical application of the knowledge and skills acquired. The dissertation also verifies the level of knowledge in the field of study and specialisation.

# ASSESSMENT METHODS

| Outcome | Methods of assessment (Mark with an X where applicable) |                        |      |         |        |       |  |  |
|---------|---|------------------------|------|---------|--------|-------|--|--|
| code    | Oral examination  | Written<br>examination | Test | Project | Report | Other |  |  |
| W01     |   |                        |      |         |        | Х     |  |  |
| U01     |   |                        |      | Х       |        |       |  |  |
| U02     |   |                        |      | Х       |        |       |  |  |
| U03     |   |                        |      | Х       |        |       |  |  |
| K01     |   |                        |      |         |        | Х     |  |  |
| K02     |   |                        |      |         |        | Х     |  |  |
| K03     |   |                        |      |         |        | Х     |  |  |

#### ASSESSMENT TYPE AND CRITERIA

| Mode of<br>instruction | Assessment type               | Assessment criteria   |
|------------------------|-------------------------------|---|
| seminar                | non-examination<br>assessment | Positive evaluation of the thesis by the supervisor and reviewer, including verification of the work in the JSA system. |

#### **OVERALL STUDENT WORKLOAD**

|                            | ECTS weighting                                  |                  |                        |    |   |   |                        |   |    |      |      |   |
|----------------------------|---|------------------|------------------------|----|---|---|------------------------|---|----|------|------|---|
|                            |   | Student workload |                        |    |   |   |                        |   |    | Unit |      |   |
| No.                        | No. Activity type                               |                  | full-time<br>programme |    |   |   | part-time<br>programme |   |    |      |      |   |
| 1                          | Schodulod contact hours                         | L                | С                      | Lb | Ρ | S | L                      | С | Lb | Ρ    | S    | h |
| 1. Scheduled contact hours |   |                  |                        |    |   |   |                        |   |    |      | - 11 |   |
| 2.                         | Other contact hours (office hours, examination) |                  |                        |    | 8 |   |                        |   |    |      |      | h |



Projekt "Dostosowanie kształcenia w Politechnice Świętokrzyskiej do potrzeb współczesnej gospodarki" nr FERS.01.05-IP.08-0234/23



Wydział Mechatroniki i Budowy Maszyn



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| 3.  | Total number of contact hours  | 8    |   | h    |
|-----|--|------|---|------|
| 4.  | Number of ECTS credits for contact hours                                 | 0,3  |   | ECTS |
| 5.  | Number of independent study hours  | 367  |   | h    |
| 6.  | Number of ECTS credits for<br>independent study hours                    | 14,7 |   | ECTS |
| 7.  | Number of practical hours  | 0    |   | h    |
| 8.  | Number of ECTS credits for<br>practical hours                            | 0,0  |   | ECTS |
| 9.  | Total study time   | 375  |   | h    |
| 10. | ECTS credits for the course<br>1 ECTS credit = 25-30 hours of study time | 1    | 5 | ECTS |

## **READING LIST**

- 1. Literatura specjalistyczna dla danego tematu pracy przejściowej.
- 2. Detyna B., Matuszek J., Szołtysek J. (2018), Praca dyplomowa. Inżynierska, magisterska, wyd.PWSZ AS, Wałbrzych.
- 3. Rawa T. (1999), Metodyka wykonywania inżynierskich i magisterskich prac dyplomowych, wyd. Akademii Rolniczo-Technicznej, Olsztyn.
- 4. Węglińska Maria " Jak pisać pracę magisterską? Poradnik dla studentów", Oficyna Wydawnicza Impuls, 2016.
- 5. Szkutnik Z.: Metodyka pisania pracy dyplomowej, Wydawnictwo Poznańskie, 2005, także Śląska Biblioteka Cyfrowa,
- 6. Żótowski B.: Seminarium dyplomowe. Zasady pisania prac dyplomowych. ATR. Bydgoszcz 1997.

