



|   |  |                                 |  |                         |           |
|---|--|---------------------------------|--|-------------------------|-----------|
| <b>1. Subject name</b>  | <b>Process planning</b>                                      |                                 |  |                         |           |
| <b>2. Subject name in Hungarian</b>   | Folyamattervezés   |                                 |  |                         |           |
| <b>3. Code</b>  | <b>BMEKOALM331</b>   | <b>4. Evaluation type</b>       | <b>exam grade</b>                                      | <b>5. Credits</b>       | <b>3</b>  |
| <b>6. Weekly contact hours</b>  | <b>2 (9) Lecture</b>   | <b>1 (5) Practice</b>           | <b>0 (0) Lab</b>                                       |                         |           |
| <b>7. Curriculum</b>  | <b>Logistics Engineering MSc (L)</b>                         | <b>8. Role</b>                  | <b>Mandatory (mc) at Logistics Engineering MSc (L)</b> |                         |           |
| <b>9. Working hours for fulfilling the requirements of the subject</b>  |  |                                 |  |                         | <b>90</b> |
| <b>Contact hours</b>  | 42   | <b>Preparation for seminars</b> | 0  | <b>Homework</b>         | 29        |
| <b>Reading written materials</b>  | 0  | <b>Midterm preparation</b>      | 0  | <b>Exam preparation</b> | 19        |
| <b>10. Department</b>   | <b>Department of Material Handling and Logistics Systems</b> |                                 |  |                         |           |
| <b>11. Responsible lecturer</b>   | Dr. Kovács Gábor   |                                 |  |                         |           |
| <b>12. Lecturers</b>  | Dr. Kovács Gábor, Bakos András                               |                                 |  |                         |           |
| <b>13. Prerequisites</b>  |  |                                 |  |                         |           |
| <b>14. Description of lectures</b>  |  |                                 |  |                         |           |
| <p>Interpretation of the process, parts, contacts, activities, events and processes. Standard methods for the description of the processes. Process Charting Techniques. Process Description levels. Top-down and bottom-up modeling. Standard process description languages. Standard Operating Procedure. Cross-Functional Flowchart. Petri net. Event Driven Process Chain (EPC). Business Process Modeling Notation (BPMN). Integrated Definition Methods (IDEF). Unified Modeling Language (UML). System Modeling Language (SysML). Yet Another Workflow Language (YAWL). Hybrid modeling. Business Process Reengineering (BPR). Executable languages (BPEL). Logistics processes modelled by using the standard languages: goal-oriented application.</p>   |  |                                 |  |                         |           |
| <b>15. Description of practices</b>   |  |                                 |  |                         |           |
| <p>Exercising process description languages (SOP, EPC, BPMN) and process planning techniques (BPR) through examples. Preparation of homework.</p>   |  |                                 |  |                         |           |
| <b>16. Description of laboratory practices</b>  |  |                                 |  |                         |           |
| <b>17. Learning outcomes</b>  |  |                                 |  |                         |           |
| <p>A. Knowledge</p> <ul style="list-style-type: none"> <li>• Knowledge of process modeling basics.</li> <li>• Knowledge of process descriptive languages.</li> </ul> <p>B. Skills</p> <ul style="list-style-type: none"> <li>• Modeling processes with standard methods based on written and oral naive descriptions.</li> <li>• Able to detect process failures and re-design processes based on them.</li> </ul> <p>C. Attitudes</p> <ul style="list-style-type: none"> <li>• Strive to maximize their abilities to make their studies at the highest possible level, with a profound and independent knowledge, accurate and error-free, in compliance with the rules of the applicable tools, in collaboration with the instructors.</li> </ul> <p>D. Autonomy and Responsibility</p> <ul style="list-style-type: none"> <li>• Take responsibility for the quality of the work and the ethical standards that set an example for the classmates, using the knowledge acquired during the course.</li> </ul> |  |                                 |  |                         |           |
| <b>18. Requirements, way to determine a grade (obtain a signature)</b>  |  |                                 |  |                         |           |
| <p>1 homework (weights: 25% for the part-performance check, 25% for the <a href="#">final submission</a>) of each at least 50% performance is the condition of signature, exam (weight: 50%)</p>  |  |                                 |  |                         |           |
| <b>19. Opportunity for repeat/retake and delayed completion</b>   |  |                                 |  |                         |           |
| <p>The part-performance check and the <a href="#">final submission</a> can both be resubmitted once.</p>  |  |                                 |  |                         |           |
| <b>20. Learning materials</b>   |  |                                 |  |                         |           |

---

Students can download the subject notes in pdf format via Moodle.

---

|                       |                 |  |                      |
|-----------------------|-----------------|--|----------------------|
| <b>Effective date</b> | 10 October 2019 | <b>This Subject Datasheet is valid for</b> | 2024/2025 semester I |
|-----------------------|-----------------|--|----------------------|

---