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| Óbuda University Donát Bánki Faculty of Mechanical and Safety Engineering | Faculty / Organizational unit:BGK BKI / Institute of Safety Science and Cybersecurity |
| Course name and code: Basics of Project Work, BBXMAY4BNE, Credit: 3Full time 2023/2024 academic year 2nd semester  |
| The courses in which the subject is taught:Mechanical Engineering BSc, Mechatronics Engineer Bsc | Lectures: See. Schedule Practice: See Schedule |
| Responsible teacher: | **Róza Számadó PhD**  | *Lecturer:* | **Éva Beke PhD** |
| Prerequisites:(with codes) | none |
| Weekly hours: | Lectures: **1** | Classroom practice: **1** | Lab: **0** | Consultation: 0 |
| Exam type (s,v,f): | **mid-term grade** |
| **The curriculum** |
| *Educational goal*:Preparation of project based education. Understanding the concept of the project, its main elements, project roles and management tools, mastering the basics of project planning and management and working as a project teammember. Development of the competencies necessary for project planning and implementation. |
| *Theme: see schedule* |
| **Schedule:** |
| *Edu.week (consult.)* | *Topics of lectures* | *Topics of Exercises* |
| 1 |  | Description of subject and requirements | Project organization – intuitively.Creating a project team, selecting topics (investment, product, software and organization development) |
| 2 |  | Concept and characteristics of the project* Balance of the project triangle
* Elements of the project
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| 3 |  | Project management methodologySuccessful and unsuccessful projectGrouping of projectsProcess, documents, participants, tools of the project | Elaboration of the lecture related task in the established groups |
| 4 |  | Project Lifecycle - Project Launch |  |
| 5 |  | Planning the project process* Organizational forms
* Project terms and conditions
* The role of the project leader
* Select the appropriate project member
 | Computer-assisted processing of a project selected by the group (using a web design program) |
| 6 |  | Planning the implementation of the project* Roles within the work team
* Risk Management
* Project planning techniques
* Activity and resource plans
* Closure Plan
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| 7 |  | Mid-term report on the group project plan. | Mid-term report on the group project plan (submission). |
| 8 |  | Project implementation phase. Project control.Completion of the project |  |
| 9 |  | Computer support for project management tasks.Evaluation of the project | Processing of the project selected by the group (selection) in the established groups |
| 10 |  | Multidimensional comparison of investment alternatives. |  |
| 11 |  | Consultation (at a fixed time) | Mid-Year Report: Multi-criteria Comparison of Investment Alternatives (Document Submission and Presentation). |
| 12 |  | Consultation(at a fixed time) |  |
| 13 |  | Finalization of the PROJECT, evaluation, submission of documentation  | Group presentations |
| 14 |  | Finalization of the PROJECT, evaluation, submission of documentation  |  |

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| **Mid-term requirements (assignment, term, minutes, etc.)** |
| Educational week | The most important topics of the exercises: minutes, assignments |
| Byweekly | Verification of group assignments |
| 6. and 8. | Submit group assignment solutions |
| 10. or 12. | Holding a group presentation |
| *Method of replacement: See the study and examination requirements of the subject and the provisions of TVSZ* |
| **Eligibility for examination and conditions for signing:**● participation in workshops (see TVSZ)● Completion of at least 60% of the summary submissionDetails of tasks to be completed during the semester (by group);Design a project with 12-20 activities (eg bathroom renovation, machine tool installation, commercial vehicle procurement, research task scheduling). Enter the estimated time of activities in an Excel spreadsheet! Deadline: Week 4 (1x per group per email)Create a Gantt diagram for your project, giving the project lead time, preferably using the Ganttproject application! Deadline: Week 6 (by email 1x per group)Provide the logical relationship between the activities before and after the activities. (The project should have one start and one end activity!) Record the data in the web design program! Make sure the project is done! Examine what real-time lead-time reduction can be achieved by transforming your critical activity chain (modifying time data). Allocate resources to carry out the activities! Deadline: Week 8 (2 ".gan" files in email per group)Set up a measurable weighted selection criteria with technical and economic criteria for purchasing a product (eg tire, bicycle, washing machine, machine tool, mobile phone). (The product should be related to the previous project!) Score, evaluate possible procurement alternatives based on a set of criteria and decide which procurement is recommended. Deadline: Week 10 (Excel spreadsheet, 1x per group, via email)Beginning in Week 10, groups will present presentations throughout the semester throughout the semester. The subject of the presentation is the project design and selection (1x20 min ppt or prezis presentation).Assessment of semester work:The four subtasks are evaluated by the instructor (timely delivery, quality of the requested solution, uniqueness of the idea, feasibility of the network plan). This results in 4 grades (F1, F2, F3, F4) from which we calculate an arithmetic mean.Presentations are evaluated by other groups from 1 to 5; we also calculate an arithmetic mean of these.The arithmetic mean of the two means gives the final group grade. The rating is multiplied by the number of people in the group. This number can be distributed to the group at its own discretion (!) As a mid-year grade. (e.g. a group of 4 people can split 14 points in multiple ways:Presentations are evaluated by other groups from 1 to 5; we also calculate an arithmetic mean of these.The arithmetic mean of the two means gives the final group grade. The rating is multiplied by the number of people in the group. This number can be distributed to the group at its own discretion (!) As a mid-year ticket. (e.g. a group of 4 people can split 14 points in multiple ways:• 1 pc. outstanding and 3 pieces. you are medium• 2 pcs. good and 2pcs. you are medium• 2 pcs. outstanding and 2pcs. you are sufficient• 1 pc. outstanding and 2 pieces. good and 1pcs. you are inadequate• ....)The instructor has a +/- 1 chance of correcting or deteriorating the student's final score (based on observed performance). Content of the two interim reports min. 15, max. 30 points, formal requirements min. 15, max. 30 points, documentation minimum 20 points, maximum 40 points, total max. 100 points. If the group 's mid - term performance is less than 50% in any subtasks, then group members do not get signed! The signature can still be replaced by the first 10 days of the exam period as a signature replacement exam. Failure to complete the replacement will result in a permanent refusal to sign.Exam type: mid-year grade**Assessment** (achievement thresholds and grades for presentations and sub-tasks):0 - 49.99%: Insufficient (1)50 - 59.99%: Sufficient (2)60 - 69.99% Medium (3)70 - 79.99% Good (4)80 - 100%: Outstanding (5) |
| **References:** |
| Guide to the Project Management Body of Knowledge (PMBOK guide)Project Management Institute, 2017. p. 592, 6th edition.<https://www.ganttproject.biz/download> (Ganttproject 2.8.5 Pilsen (build 2179))Adrianne Watt: Project Management. The Open University of Hong Kong . 2014. <http://www.opentextbooks.org.hk/system/files/export/15/15694/pdf/Project_Management_15694.pdf> |