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| **Óbuda University** |
| Rejtő Sándor Faculty of Light Industry and Environmental Engineering | Faculty | Institute of Environmental Engineering and Nature science | Institute |
| Title of the course (inc. Neptun code): | Project workRKPPR1ABNE | Credit: | 4 |
| Type (compulsory/optional): | Compulsory | Education Type: | Full time | Semester: | 4 |
| Study field where the course is taught: | Environmental Engineering |
| Tantárgyfelelős: | **Bodáné Dr. Kendrovics Rita** | *Project leaders* | **Norbert Berecz** |
| Required preliminary knowledge (incl. Neptun code): | Environmental elements protection I. - Water quality protection (RKXKE1ABNE), Environmental elements protection II. - Air quality protection (RKXKE2ABNE), Environmental hazards I. – Noise and Vibration protection (RKXKA1ABNE) |
| Weekly teaching hours:  | Lecture  | 0 | Classroom work:  | 0 | Laboratory work: | 2 |
| Exam type (ce; e; tm): | tm | Language of course: | English | Course placement in class schedule: | Laboratory work: Thursday 8:00-9:50 (D.306) |
| **Curriculum** |
| **Course description** |
| The aim of the course is to enable students to apply the theoretical knowledge acquired in the vocational subjects and the theoretical knowledge acquired in the current semester in practice, by participating in field work and visits to factories. Sampling and measurements in the field and in the laboratory will provide students with experience that they can build on when solving problems in the future. The main objective of the course is to provide a competence-based environmental engineering education to complement the high level theoretical scientific training. During the semester, students will carry out research on a specific environmental problem in small groups (max. 4 students). Their work will be supported by the project leaders from the background. The students will work on the problem according to their own timetable and will report on their partial results to each other and to the project leaders in joint consultations. At the end of the semester, they present their work to a professional committee in the form of a written report (detailed description of the work carried out), an oral report (presentation to a professional committee) and a portfolio. Participation in group work strengthens personal relationships and social skills, and has the added benefit of teaching students to work in a group and to cooperate. Within each research topic, participants are confronted with the need to think in systems and integrate what they have learned within each subject. Field experience is essential to solve environmental problems. Fieldwork also provides an opportunity for environmental education, thus shaping students' ecological thinking and environmental awareness. |
| **Detailed description of the subject, timetable:** |
| **Topics for consultation** |
| Weekly or in blocks on request | General themes, specific weekly topics to be developed according to the content of the projects |
| 1.2. | Discussion, grouping into modules using the concept map. |
| Formulating an environmental problem, setting goals and tasks. |
| 3.4. | Task-related field surveys, field work, condition assessments. |
| Presentation of partial research results, discussion. |
| 5.6. | Field visits, field measurements and sampling, measurements in the laboratory depending on the project topic. |
| Site visits, field work. |

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| 7.8. | Discussion of research results. |
| Literature review, discussion, debate. |
| 9.10. | A discussion on sustainability, guided debate on sustainability. |
| Field inspection, sampling, laboratory testing of samples, depending on the project. |
| 11.12. | Discussion of research results. |
| Measurement in the laboratory, sampling, testing of samples, depending on the project. |
| 13.14. | Agreeing the content of the project reports, finalising the project programmes, preparing the project closure (final project presentation). |
| Final presentation. |
| Mid-term requirements |
| Active participation in the chosen project, solution of the problem chosen within the project, presentation of the workflow and results to the committee at the end of the semester in the final project evaluation presentation. The grade obtained here is equivalent to a mid-year mark.Requirement: - A written report of the semester's work, - oral presentation ppt presentation, - portfolio of individual work. |
| The method of obtaining a signature / mid-term mark: |
| The basis for the mid-term mark: - participation and activity in consultations,- active participation in group work,- active participation in fieldwork,- the research (project) report, - presentation of research results to a professional committee.The mid-term mark will be awarded on the basis of these criteria, taking into account the following scores:- final project presentation (oral presentation) score: 50 points, - group work (written presentation): 25 points, - individual work (portfolio): 25 points, total 100 points (0-40 unsatisfactory, 41-55 fair, 56-70 average, 71-85 good, 86-100 excellent). |
| **Literature** |
| Recommended: | Previous project work e.g. Aranyhegyi stream status assessment Project report 2014, portfolios uploaded as a sample in e-learning system. |
| **Quality Management** |
| The subject is subject to an annual faculty review, which takes into account the effectiveness of knowledge transfer and information from the evaluation of student and graduate feedback. On the basis of the evaluation, improvement actions can be launched in relation to the subject, covering the following areas - the methodology of knowledge transfer,- the content of the curriculum,- the coherence of lectures and exercises.An annual evaluation of the changes and their results is carried out, a record is made and the elements that have proved effective are incorporated into the subject programme in a timetable organised by the subject supervisor. |