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| 1. Course title: Analytical Chemistry calculations II. | | | | | |
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| 2. Code: | | 3. Type (lecture, practice etc.): seminar | | | |
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| 4. Contact hours: 2 hoursper week | | 5. Number of credits (ECTS): 2 | | | |
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| 6. Preliminary conditions (max. 3): | | | | | |
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| 7. Announced:fall semester, spring semester, both | | | | | |
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| 8. Limit for participants: - | | | | | |
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| 10. Responsible teacher (faculty, institute and department):  Ibolya Kiss PhD (Faculty of Science, Institute of Chemistry, Department of Analytical and Environmental Chemistry) | | | | | |
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| 11. Teacher(s) and percentage: | | Dr. Ibolya Kiss | | 100 % | |
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| 12. Language:English | | | | | |
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| 13. Course objectives and/or learning outcomes:  Objectives: The lecture intends to introduce students to the analytical calculations. The course gives an insight into the quantitative analytical chemistry. The examples are shown to use analytical chemistry in every day practice.  Learning outcomes: students completing the course will have knowledge on basic quantitative analytical methods and calculations. Students get knowledge and skills, and they will be able to solve analytical problems. Their positive *attitude* towards innovative methods will increase significantly. | | | | | |
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| 14. Course outline  Calculation tasks related to the different areas of the instrumental analysis  Week 1-3. Potentiometry  Week 4. Conductometry  Week 5-6 Spectrophotometry  Week 7. Atomic spectroscopy  Week 8 – 9. Liquid chromatography  Week 10 -11. Gas chromatography  Week 12. Electrophoresis  Week 13. Written test | | | | | |
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| 15. Mid-semester works  It is compulsory to participate in seminar. | | | | | |
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| 16. Course requirements and grading  The written exam is based on the seminars, the available electronic materials and seminar materials.  Grades:  0–50% fail  51–65% acceptable  66–75% average  76–90% good  91–100% excellent | | | | | |
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| 17. List of readings   1. Skoog, West, Holler, Crouch: Fundamentals of Analytical Chemistry, 9th edition Brooks/ Cole 2. Holler, Skoog, Crouch: Principles of Instrumental Analysis, 6th edition, Brooks/ Cole | | | | | |
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| 18. Recommended texts, further readings   1. An electronic textbook is available from the lecturer. 2. Harris, Daniel C. :Quantitative chemical analysis, 8th edition, New York: W. H. Freeman and Co., [2010], cop. 2010 | | | | | |
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| **Date** | 27April, 2017 | **Prepared by** |  | | |
| Dr. Ibolya Kiss  responsible teacher | | |
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| **Endorsed by** | | |  | | |
| Dr. László Kollár program supervisor | | |