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| 1. Course title: General and Inorganic Chemistry seminar 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): 3 | | | |
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| 6. Preliminary conditions (max. 3):  General and Inorganic chemistry I lecture  General and Inorganic chemistry I seminar  General and Inorganic chemistry I laboratory | | | | | |
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| 7. Announced:fall semester, spring semester, both | | | | | |
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| 8. Limit for participants: 30 | | | | | |
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| 10. Responsible teacher (faculty, institute and department):  Attila Horváth PhD (Faculty of Science, Institute of Chemistry, Department of Inorganic Chemistry) | | | | | |
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| 11. Teacher(s) and percentage: | | Dr. Attila HORVÁTH | | 100 % | |
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| 12. Language:English | | | | | |
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| 13. Course objectives and/or learning outcomes:  Objectives: The seminar intends to introduce the basic tools of solving calculation problems in general and inorganic chemistry.  Learning outcomes: students completing the course will have *knowledge* on solving problems related to redox reactions, electrochemistry and pH calculations of strong acids and bases, as well as week acids and bases. They will be *able* to solve individually chemical calculation problems. they will have a *competence* of solving new problems in the related fields of the above mentioned topics. Their positive *attitude* towards calculation problem methods will increase significantly. | | | | | |
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| 14. Course outline   1. Detailed Balancing of chemical equations 2. Redox calculations I. 3. Redox calculations II. 4. Redox calculations III. 5. Electrolysis I. 6. Electrolysis II. 7. I. written exam 8. Galvanic cells 9. pH calculations of strong acids and bases I. 10. pH calculations of strong acids and bases II. 11. pH calculations of weak acids and bases I. 12. pH calculations of weak acids and bases II. 13. pH calculations of weak acids and bases III. 14. II written exam | | | | | |
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| 15. Mid-semester works  Attending seminars is obligatory. | | | | | |
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| 16. Course requirements and grading  Two written exams are scheduled during the course of the semester. (In case of each of them a retake exam date is provided.) To pass the course at least 50% of the total points of the written exams is required to achieve. The grade is excellent, if the overall score is higher than 85%, it is good, average and passed if the overall score is higher than 70%, 60% and 50%, respectively. If the overall score is lower than 30% then no retake exam is allowed during the examination period. | | | | | |
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| 17. List of readings  An electronic textbook containing hundreds of chemical problems are available from the instructor. | | | | | |
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| 18. Recommended texts, further readings | | | | | |
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| **Date** | 15 May, 2017 | **Prepared by** |  | | |
| Dr. Attila HORVÁTH  responsible teacher | | |
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| **Endorsed by** | | |  | | |
| Dr. László KOLLÁR program supervisor | | |