

Fundamentals of Analytical Chemistry, CHC014011L

**Schedule:**

Personal safety equipment – goggles, gloves, long pants, closed toe shoes, etc. and a lab notebook are mandatory.

Students are expect to come prepared to conduct the experiments.

Date:	Subject matter/experiments:
<b>27.11.2018</b>	introduction, safety rules, course completion requirements
<b>04.12.2018/</b> <i>pre-lab quiz</i>	<b>neutralization titrations/</b> 1. standardization of a hydrochloric acid solution by anhydrous sodium carbonate 2. determination of sodium hydroxide concentration
<b>11.12.2018</b> <b>18.12.2018/</b> <i>pre-lab quiz</i>	<b>gravimetric methods; complex-formation titration; oxidation-reduction titrations/</b> determination of iron and nickel in the mixture: 1. gravimetric determination of iron
<b>08.01.2019/</b> <i>pre-lab quiz</i>	2. determination of iron using potassium dichromate (redox titration) 3. complexometric determination of nickel and iron
<b>15.01.2019</b> <b>22.01.2019/</b> <i>pre-lab quiz</i>	<b>complex-formation titration; precipitation titrimetry; oxidation-reduction titrations; spectrophotometry/</b> analysis of water: 1. determination of hardness of water 2. determination of chloride in water by the Mohr method 3. determination of dissolved oxygen in water (Winkler's method) 4. spectrophotometric determination of ammoniacal nitrogen in water
<b>29.01.2019</b>	experiments making up; final test (whole material); addenda

**Successful completion of the course requirements:**

Attendance is mandatory for each experiment listed in the schedule.

Student will not be allowed to pass the course without completing all laboratory experiments. This includes a written pre-lab quiz (see schedule above), performance of the experiment in the laboratory, and a written report for each lab.

Lab experiments may require the full four hours to be completed.

If Student will be more than 20 minutes late to lab or miss lab without a valid written excuse, you will not be allowed to perform the experiment.

If Student will miss a lab due to illness, must notify the Teacher within 24 hours of the lab period. A doctor's note is indispensable to corroborate illness and it is a condition for making up the lab. If Student needs to miss a lab for a valid reason other than an illness, she/he must inform Teacher the week before the lab you will miss. Valid reasons do NOT include needing more time to do schoolwork or social obligations. A document must be brought to corroborate the absence.

Failure to complete all experiments, including prelab quizzes, will result in a failing grade for the course. Each quiz will is worth 3 points maximum and to complete the course student needs 6 points, minimum.

Experiments are graded based on the accuracy of the reported results.