MODULE HANDBOOK

Module Name	Qualitative Analytical Chemistry
Module level	Bachelor
Abbreviation, if applicable	8420402094
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	2nd / first year
Module coordinator(s)	Prof. Dr. Sri Poedjiastoeti, M.Si.
Lecturer(s)	1. Prof. Dr. Sri Poedjiastoeti, M.Si. 2. Dr. Maria Monica Sianita, M.Si. 3. Rusmini S.Pd., M.Si.
Language	Bahasa Indonesia
Classification within the curriculum	Compulsory
Teaching format/class hours per week during the semester:	2 hours lectures (50 min / hour)
Workload:	1 CU for bachelor degree equals to 3 workhours per week or 170 minutes (50' face to face learning, 60' structured learning, and 60' independent learning). In one semester, courses are conducted in 14 weeks (excluding mid and end-term exam). Thus, 1 CU equals to 39.67 workhours per semester. One CU equals to 1.59 ECTS.
Credit points:	2 CU = 2 x 1.59 = 3.18 ECTS
Prerequisites course(s):	Basic chemistry 1
Targeted learning outcomes:	CLO 1 : Students are able to collect information from various sources, both ICT and non-ICT, so that they have knowledge of supporting theories, experimental techniques and how to carry out qualitative analysis. CLO 2 : Skilled students use tools and materials in conducting qualitative analysis through the stages of preliminary analysis, analysis of cations and anions in a compound and the reactions that occur. CLO 3 : Students have the ability to work together and be responsible for conducting a quality analysis. CLO 4 : Students have the ability to communicate their knowledge and skills in the form of the results of qualitative analysis of chemical compounds in single or multiple samples
Content:	1. supporting theory in qualitative analysis 2. qualitative analysis experimental techniques 3. preliminary analysis 4. cation analysis in general 5. cation analysis group I 6. analysis of group II cations

	7. cation analysis group III 8. cation analysis for group IV 9. analysis of group V cations 10. Anion analysis
Study / exam achievements:	Students are considered to be competent and pass if at least get 55 Final score is calculated as follows: 20% participation + 30% assignment + 20% middle exam (UTS) & 30% final exam (UAS) Table index of graduation • A = 4 (85 ≤-≥ 100) • A- = 3,75 (80 ≤-< 85) • B+ = 3,5 (75 ≤- < 80) • B = 3 (70 ≤-< 75) • B- = 2,75 (65 ≤-<75) • C+ = 2,5 (60 ≤-<65) • C = 2 (55 ≤-<60) • D = 1 (40 ≤-<55) • E = 0 (0 ≤-<40)
Media:	Computer, LCD, White board, laboratory
Learning Methods	Individuals assignment, group assignment, discussion, presentation, and practicum
Literature:	1. Svehla, G, 1996. *Vogel's Text Book of Macro and Semimicro Qualitative Inorganic Analysis. seventh ed*. London: Longman Group Limited 2. Sawyer, Heineman, and Beebe.1984. *Chemistry Experiments for Instrumental Methods*. New York: John Wiley & Sons 3. Sorum, Clarence Harvey, and Lagowski, J. J. 1977. *Introduction to Semimicro Qualitative Analysis*. United State of America: Prentice-Hall Inc 4. Poedjiastoeti, S., Monica, M., Sukarmin, dan Rusmini. 2016. *Kimia Analisis Kualitatif*. Surabaya: Unesapress 5. Briggs, J. G. R. 2000. *Chemistry for GCE 'O' Level Practical Workbook*. Singapore: Pearson Education Asia Pte Ltd 6. Moeller Therald, Bailar, Jr JohnC. Kleinberg, Jacob, Guss, Cyrus O. Castellion, Mary E, and Metz Clyde, 1980, *Chemistry with Inorganic Qualitative Analysis*, New York: Academic Press, INC. 7. Metz, Clyde and Castellion Mary E, 1980, *Chemistry: Inorganic Qualitative Analysis in the Laboratory*, Academic Press 8. O. A. Ievtifieieva, V. V. Bolotov, T. A. Kostina, O. M. Svechnikova, T. I. Yuschenko, N. I. Kaminska, A. E. Kosareva, L. V. Slobodyanyuk, O. P. Yashchuk ; edited by O. A. Ievtifieieva., 2014, *Analytical chemistry (Qualitative analysis). Part I*, Kharkiv : Publishing house the CLL «Generous farmstead plus»,.