<table>
<tr><td colspan="2">  </td><td colspan="4">Faculty of Natural Sciences and Mathematics
Chemistry Department
Chemistry Education Study Program</td></tr>
<tr><td colspan="2">Module name</td><td colspan="4">Chemistry for Vocational High School</td></tr>
<tr><td colspan="2">Module level, if applicable</td><td colspan="4">4th year</td></tr>
<tr><td colspan="2">Code, if applicable</td><td colspan="4">SPK-756</td></tr>
<tr><td colspan="2">Semester(s) in which the module is taught</td><td colspan="4">7th semester</td></tr>
<tr><td colspan="2">Person responsible for the module</td><td colspan="4">Krisna Merdekawati, M.Pd</td></tr>
<tr><td colspan="2">Lecturer</td><td colspan="4">Krisna Merdekawati, M.Pd
Lina Fauzi’ah, M.Sc</td></tr>
<tr><td colspan="2">Language</td><td colspan="4">Bahasa Indonesia</td></tr>
<tr><td colspan="2">Relation to curriculum</td><td colspan="4">Compulsory</td></tr>
<tr><td>Teaching methods</td><td>Class size</td><td>Forms of active participation</td><td colspan="3">Workload: 91 hours</td></tr>
<tr><td rowspan="3">Theory</td><td rowspan="3">50-60</td><td rowspan="3">Discussion</td><td>Lecture: 100 (min) x 16 (meeting)</td><td colspan="2">27 hours</td></tr>
<tr><td>Assignment: 120 (min) x 16 (week)</td><td colspan="2">32 hours</td></tr>
<tr><td>Independent study: 120 (min) x 16 (week)</td><td colspan="2">32 hours</td></tr>
<tr><td colspan="2">ECTS credit</td><td colspan="4">3.25</td></tr>
<tr><td colspan="2">Credit points</td><td colspan="4">2 SCU</td></tr>
<tr><td colspan="2">Requirements according to the examination regulations</td><td colspan="4">Minimum attendance at lectures is 75% (according to UII regulation)</td></tr>
<tr><td colspan="2">Recommended prerequisites</td><td colspan="4">N/A</td></tr>
<tr><td colspan="2">Related course</td><td colspan="4">N/A</td></tr>
<tr><td colspan="2">Module objectives/intended learning outcomes</td><td colspan="4">On successful completion of the course students should be able to:
1. Students can explain the curriculum structure, objectives, development directions, characteristics, and areas of expertise of Vocational High School
a. Students can explain the structure of the Vocational High School curriculum
b. Students can explain the purpose and direction of Vocational High School development</td></tr>
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	2. Students can explain the learning substance and competence of Vocational High School chemistry learning a. Students can explain the substance of Vocational High School chemistry learning b. Students can explain the chemistry learning competencies of Vocational High School 3. Students can explain the learning substance and competence of vocational chemistry learning in the field of analytical chemistry expertise a. Students can explain the substance of Vocational High School chemistry learning b. Students can explain vocational chemistry learning competencies. 4. Students can explain chemical pedagogy knowledge related to titrimetric and gravimetric analysis materials, chemical analysis of instruments, microbiology, analysis of organic materials, analysis of inorganic materials, photometric analysis, verification of measuring instruments a. Students can explain their knowledge of chemical pedagogy related to titrimetric analysis materials b. Students can explain the knowledge of chemical pedagogy related to gravimetry c. Students can explain their knowledge of chemical pedagogy related to chemical analysis of instruments d. Students can explain their knowledge of chemical pedagogy related to microbiology e. Students can explain their knowledge of chemical pedagogy related to organic matter analysis f. Students can explain their knowledge of chemical pedagogy related to the analysis of inorganic materials g. Students can explain their knowledge of chemical pedagogy related to photometric analysis h. Students can explain their knowledge of chemical pedagogy related to measuring instrument verification
Content	Chemistry curriculum in Vocational High School (VHS):

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The goals and direction of vocational development,
Vocational characteristics, vocational expertise,
Learning substances at vocational schools,
Vocational chemistry learning competencies,
Vocational chemistry curriculum structure (normative): material and sequence, time allocation for problems, and development of chemical materials,
VHS revitalization,
Adaptive vhs chemistry
Core and basic competencies of productive subjects at VHS chemistry analyst, material review: titrimetric and gravimetric analysis, chemical analysis of instruments, microbiology, analysis of organic matter, analysis of inorganic materials, photometric analysis, verification of measuring instruments

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<tr><td>Study and examination requirements and forms of examination</td><td>Final score (NA) is calculated as follows:
<table>
<tr><th>Intended learning outcomes</th><th>Weight (%)</th><th>Technique of assessment</th></tr>
<tr><td>1</td><td>25</td><td>Written test (midterm)</td></tr>
<tr><td>2</td><td>25</td><td>Written test (midterm)</td></tr>
<tr><td>3</td><td>25</td><td>Written test (Final Examination)</td></tr>
<tr><td>4</td><td>25</td><td>Written test (Final Examination)</td></tr>
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</td></tr>
<tr><td>Media employed</td><td>Power point slide presentation, video, Google classroom</td></tr>
<tr><td>Reading list</td><td>Direktorat Pembinaan Sekolah Menengah Kejuruan, Analisis Kimia Dasar: Paket Keahlian Kimia Analis Kelas X Semester 1, Jakarta: Direktorat Pembinaan SMK.
Sahirman, 2013, Analisis Kimia Dasar Kelas X Semester 2, Jakarta: Direktorat Pembinaan SMK.
Direktorat Pembinaan Sekolah Menengah Kejuruan, Kimia Analitik Terapan, Jakarta: Direktorat Pembinaan SMK.</td></tr>
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Prepared by:	Verified by:	Authorized by:
Person responsible for the module	Student representative	Coordinator Program