

**Table 5.2** Course specification

<b>Level:</b> Bachelor
<b>Course title:</b> Introduction to Laboratory Practice
<b>Status:</b> elective
<b>ECTS:</b> 5
<b>Requirements:</b> none
<b>Course aim</b> Obtaining basic knowledge of chemical laboratory safety rules, laboratory glassware and equipment as well as laboratory operations.
<b>Course outcome</b> After completing this course, the student is able to: <ol style="list-style-type: none"><li>1. demonstrate knowledge of laboratory glassware and equipment, which will be used during studies.</li><li>2. demonstrate basic knowledge of laboratory operations that are used for synthesis and analysis of different classes of compounds.</li><li>3. conduct experiments independently, write laboratory reports, and based on experimental results, formulate conclusions on the observed chemical changes.</li></ol>
<b>Course content</b>  <i>Theory</i> Chemical laboratory safety rules. Laboratory glassware and equipment. Basic laboratory operations. SI system. Obtaining, presentation and processing of experimental results. Reagents and reagent containers. Heating. Mass, volume, temperature and pressure measurements. Preparation of different solutions.  <i>Practice: Practical classes, OFT, SRW</i> Mass measurement on technical and analytical balance. Volume measurement. Heating. Temperature measurements. Preparation of gases. Separation of mixtures. Preparing of solution. Reaction of synthesis and calculation of yield.