<table>
<thead>
<tr>
<th>Level:</th>
<th>specialist</th>
</tr>
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<tbody>
<tr>
<td><strong>Course title:</strong></td>
<td>PEDAGOGICAL RESEARCH IN CHEMISTRY TEACHING SPH605</td>
</tr>
<tr>
<td><strong>Status:</strong></td>
<td>elective</td>
</tr>
<tr>
<td><strong>ECTS:</strong></td>
<td>5</td>
</tr>
<tr>
<td><strong>Requirements:</strong></td>
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**Learning objectives**

- Introducing students to
  - the needs and abilities of pedagogical research in chemistry teaching
  - developing the methodological culture of contemporary chemistry teacher
- Training the students
  - for understanding, designing, planning, implementation, elaboration and presentation of the results of professional and scientific educational research in chemistry teaching

**Learning outcomes**

Students are expected to:

- demonstrate knowledge of the methodology of pedagogical research,
- elaborate projects for pedagogical research,
- apply the techniques of pedagogical research,
- process the collected research data,
- prepare the documents and the results on the research.

**Syllabus**

*Theoretical instruction:*
The needs and abilities of pedagogical research in modern chemistry teaching. Research design; conceptual and research-organizational project. Types of pedagogical research. Pedagogical experiment in chemistry teaching. Techniques of pedagogical research in chemistry teaching: testing, surveys. Sample and population of the research. Statistical processing and presentation of the results of pedagogical research in chemistry teaching.

*Practical instruction:*
Preparation of seminar papers and projects on given topics that follow the lectures.

**Weekly teaching load**

<table>
<thead>
<tr>
<th>Lectures:</th>
<th>Exercises:</th>
<th>Other forms of teaching:</th>
<th>Student research:</th>
<th>Other:</th>
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