### COURSE DESCRIPTION

1. **Course title:** MATERIALS SCIENCE AND CORROSION
2. **Course code**

3. **Validity of course description:** 2014/2015

4. **Level of studies:** 1st cycle of higher education

5. **Mode of studies:** intramural studies

6. **Field of study:** CHEMICAL TECHNOLOGY

7. **Profile of studies:** general academic

8. **Programme:** INORGANIC TECHNOLOGY AND ELECTROCHEMISTRY

9. **Semester:** VI

10. **Faculty teaching the course:** Department of Inorganic Chemistry, Analytical Chemistry and Electrochemistry

11. **Course instructor:** Artur Maciej, Joanna Michalska, Izabela Barszczewska-Rybarek

12. **Course classification:** common courses

13. **Course status:** compulsory

14. **Language of instruction:** English

15. **Pre-requisite qualifications:** general chemistry, inorganic chemistry, organic chemistry

16. **Course objectives:** The objective of the course is getting acquainted with metallic materials, building materials, ceramics and polymers, the methods of the materials production, the properties as well as corrosion resistance of the materials.

17. **Description of learning outcomes:**

<table>
<thead>
<tr>
<th>Nr</th>
<th>Learning outcomes description</th>
<th>Method of assessment</th>
<th>Teaching methods</th>
<th>Learning outcomes reference code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Student has a general knowledge concerning to physics, physical laws and interactions.</td>
<td>examination</td>
<td>lecture</td>
<td>K_W02 (+)</td>
</tr>
<tr>
<td>2</td>
<td>Student has a fundamental knowledge about selection of materials using in chemical installation and apparatus construction</td>
<td>examination</td>
<td>lecture</td>
<td>K_W03 (++)</td>
</tr>
<tr>
<td>3</td>
<td>Student has a knowledge about row materials, products and processes applying in chemical industry and about development branches of chemical industry</td>
<td>examination</td>
<td>lecture</td>
<td>K_W08 (++)</td>
</tr>
<tr>
<td>4</td>
<td>Student has a skill of self-education</td>
<td>examination</td>
<td>lecture</td>
<td>K_U05 (+)</td>
</tr>
<tr>
<td>5</td>
<td>Student has a consciousness of importance of extra-technical aspects and effects of engineering activity, including an influence on environment and a responsibility for undertaken decisions</td>
<td>examination</td>
<td>lecture</td>
<td>K_K02 (++)</td>
</tr>
</tbody>
</table>

18. **Teaching modes and hours**

Lecture
Sem 6 - 30 h

19. **Syllabus description:**

**Semester 6:**

20. Examination: semester 6

21. Primary sources:

22. Secondary sources:

23. Total workload required to achieve learning outcomes

<table>
<thead>
<tr>
<th>Lp.</th>
<th>Teaching mode</th>
<th>Contact hours / Student workload hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lecture</td>
<td>30/30</td>
</tr>
<tr>
<td>2</td>
<td>Classes</td>
<td>/</td>
</tr>
<tr>
<td>3</td>
<td>Laboratory</td>
<td>/</td>
</tr>
<tr>
<td>4</td>
<td>Project</td>
<td>/</td>
</tr>
<tr>
<td>5</td>
<td>BA/MA Seminar</td>
<td>/</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>Total number of hours</td>
<td>30/30</td>
</tr>
</tbody>
</table>

24. Total hours: 60

25. Number of ECTS credits: 2

26. Number of ECTS credits allocated for contact hours: 1

27. Number of ECTS credits allocated for in-practice hours (laboratory classes, projects): 0

26. Comments:

Approved:

................................. (date, Instructor’s signature) ................................. (date, the Director of the Faculty Unit signature)