# Course Description

1. Course title: SAFETY MANAGEMENT AND OCCUPATIONAL RISK SYSTEMS

2. Course code: SI – TOBHP/36

3. Validity of course description: 2017/2018

4. Level of studies: BSc programme

5. Mode of studies: intramural studies

6. Field of study: SAFETY ENGINEERING RG

7. Profile of studies: general

8. Programme: INDUSTRIAL SAFETY ORGANIZATION AND ENGINEERING

9. Semester: V

10. Faculty teaching the course: RG3

11. Course instructor: Joanna Herczakowska, PhD, Eng.

12. Course classification: course of specialization

13. Course status: compulsory

14. Language of instruction: English

15. Pre-requisite qualifications: none

16. Course objectives: The purpose of the education is to familiarize students with the methods of work safety management and techniques of analysis and assessment of occupational risk in the workplace in the company.

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>Students have a detailed and theoretically founded knowledge in the field of risk analysis and assessment to be used to formulate and solve simple practical engineering problems, typical for safety engineering</td>
<td>Test, project dissemination and seminar presentation</td>
<td>Lecture, project, seminar</td>
<td>K_W13 +++</td>
</tr>
<tr>
<td>2</td>
<td>Students have a basic knowledge of management and business</td>
<td>Test</td>
<td>Lecture</td>
<td>K_W24 +++</td>
</tr>
<tr>
<td>3</td>
<td>Students can use simulations, analytical and experimental methods to formulate and solve engineering tasks</td>
<td>Test, project dissemination and seminar presentation</td>
<td>Lecture, project, seminar</td>
<td>K_U08 +++</td>
</tr>
<tr>
<td>4</td>
<td>Students are able to use the English language sufficiently to read and understand simple documents in the field of safety engineering and related fields, including tables, figures, charts, diagrams, and other similar documents</td>
<td>Test, project dissemination and seminar presentation</td>
<td>Lecture, project, seminar</td>
<td>K_U10 ++</td>
</tr>
<tr>
<td>5</td>
<td>Students are prepared to work as a safety engineer, know the rules and principles of occupational health and safety</td>
<td>Test</td>
<td>Lecture</td>
<td>K_U12 +++</td>
</tr>
<tr>
<td>6</td>
<td>Students are able to analyze and evaluate the functioning of the existing technology, in particular equipment, facilities, systems, processes or services, typical for safety engineering</td>
<td>Test, project dissemination and seminar presentation</td>
<td>Lecture, project, seminar</td>
<td>K_U14 +++</td>
</tr>
<tr>
<td>7</td>
<td>Students are able to identify and formulate a specification for simple tasks of practical engineering, typical for safety engineering</td>
<td>Project, seminar discussion</td>
<td>Project, seminar</td>
<td>K_U15 +++</td>
</tr>
<tr>
<td>8</td>
<td>Students are able to evaluate the usefulness of routine methods and tools to solve simple practical engineering problems, typical for safety engineering, as well as to select and use appropriate methods and tools</td>
<td>Project dissemination, seminar presentation</td>
<td>Project, seminar</td>
<td>K_U16 +++</td>
</tr>
<tr>
<td>9</td>
<td>Students can design (according to preset specification) and implement a simple device, object, system, or process, typical for safety engineering, using appropriate methods, techniques and tools</td>
<td>Project dissemination</td>
<td>Project</td>
<td>K_U17 ++</td>
</tr>
</tbody>
</table>
18. Teaching modes and hours
Lecture: 15h
Project: 15h
Seminar: 15h

19. Syllabus description:

Lecture

Project
Preliminary hazard analysis in a given workplace performed to identify all potential hazards and accidental events that may lead to an accident, rank the identified accidental events according to their severity, identify required hazard controls and follow-up actions.

Seminar
Presentation about the results of the conducted statistical data analysis concerning accidents at work, work related health problems, factors at work that can adversely affect mental well-being or physical health.

20. Examination: no

21. Primary sources:
13. OHSAS 18010:2007 Occupational health and safety management systems - requirements
14. ILO-OSH 2001 Guidelines on Occupational Safety and Healthy Management System
15. PKN-ISO Guide 73 „Risk management – Vocabulary”
16. PN-ISO 31000 „Risk management – Principles and guidelines”
17. PN EN 31010 „Risk management – Risk assessment techniques”

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>15/15</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>15/30</td>
</tr>
<tr>
<td>5</td>
<td>BA/MA Seminar</td>
<td>15/30</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>Total number of hours</td>
<td>45/75</td>
</tr>
</tbody>
</table>

24. Total hours: 120

25. Number of ECTS credits: 4

26. Number of ECTS credits allocated for contact hours: 2

27. Number of ECTS credits allocated for in-practice hours (laboratory classes, projects): 3

26. Comments:

Approved:

(date, Instructor’s signature) .................................

(date, the Director of the Faculty Unit signature)