

### DESCRIPTION OF A STUDY COURSE – SYLLABUS

<b>Title of a course</b>	Computers in safety science				
<b>Head of course</b>	Assistant Professor, PhD Snježana Babić				
<b>Study programme</b>	Professional undergraduate study Occupational Safety				
<b>Status of a course</b>	Obligatory				
<b>Year of study</b>	1.	<b>Semester</b>	II	<b>ECTS credits</b>	5
<b>Teaching plan (L + E + S+ Pr)</b>	2L+3E				
<b>Goals of a course</b>					
Students acquire the basic knowledge, skills and competencies necessary to understand the application of computers in the occupational safety and health business, as well as to continue their studies and lifelong education.					
<b>Conditions for enrolling course</b>					
No conditions					
<b>Learning outcomes on a level of a study programme which includes course</b>					
Outcome 1: Explain the basic principles of mathematics, physics, chemistry, electrical engineering and mechanics required for work in the field of occupational safety and health. Outcome 2: Perform and interpret measurements in the field of occupational safety in a laboratory and in the work environment.					
<b>Expected learning outcomes on a level of a course</b>					
<ol style="list-style-type: none"> <li>1. Distinguish and explain the basic concepts of information and computer technology.</li> <li>2. Explain the basic concepts of computer systems (hardware and software) required for operation in the field of safety and occupational safety.</li> <li>3. Define a business information system supported by information technology and categorize and describe related elements.</li> <li>4. Explain the basic concepts of computer networks.</li> <li>5. Define and explain the basic concepts of databases.</li> <li>6. Interpret modern technologies and evaluate the possibilities of their application in the field of safety and occupational safety.</li> <li>7. Apply the desktop and mobile versions of advanced level text processing computer tools and spreadsheets and other selected computer tools to organize tasks and time for work in the field of safety and occupational safety.</li> </ol>					
<b>Content of a course</b>					
Informatics. Information. Information society. Information technology. A computer. Program support. Communications. Organization and information. System concept and definition. Theory of organization, management and decision-support models. Information systems. Expert systems. Development of data processing. Computer systems and their development. Choice of computer facilities. Mathematical and logical fundamentals of a computer. Presenting and organizing data. Redundancy. Program support for computer functioning. The evaluation of software facilities. Computer networks. Multimedia. Information system security. User information systems. Windows, Word, Excel, Access and Internet.					
<b>Teaching modes</b>	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> auditory exercises <input checked="" type="checkbox"/> seminars and workshops <input type="checkbox"/> distance learning <input type="checkbox"/> field classes		<input checked="" type="checkbox"/> individual assignments <input type="checkbox"/> multimedia and network <input type="checkbox"/> laboratory <input type="checkbox"/> supervisor's work <input type="checkbox"/> other _____		
<b>Comments</b>					
<b>Students' obligations</b>					

### Grading, evaluation and monitoring of students' work continuously during lectures and exams

Grading is based upon evaluation of course's learning outcomes' adoption. Grading is performed continuously during lectures and/or during exam, in compliance with the provisions of Regulation on the assessment of students.

#### Continuous check-up:

Outcomes	Practical exam I	Practical exam 2	Activity in class	Theoretical written exam 1	Theoretical written exam 2	Threshold	Max
Outcome 1				6%		3%	6%
Outcome 2				6%		3%	6%
Outcome 3				8%	8%	8%	16%
Outcome 4					5%	2,5%	5%
Outcome 5					5%	2,5%	5%
Outcome 6			8%		2%	5%	10%
Outcome 7	25%	25%	2%			26%	52%
Percentage of ECTS	1,25	1,25	0,5	1	1	2,5	5
Total	25%	25%	10%	20%	20%	50 %	100 %

A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.

#### Exam term:

Outcomes	Written exam	Oral exam	Max
Outcome 1	5%	1%	6%
Outcome 2	5%	1%	6%
Outcome 3	10%	6%	16%
Outcome 4	4%	1%	5%
Outcome 5	4%	1%	5%
Outcome 6	9%	1%	10%
Outcome 7	52%	-	52%
Percentage of ECTS	4,45	0,55	5
Total	89%	11%	100 %

A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.

#### Grading:

A student has passed the exam if he has acquired at least 50% of anticipated credits of a specific learning outcome.

If a student has passed learning outcomes of all courses, the accomplished credits (percentages) of all passed learning outcomes are being added, while the final grade is defined upon following table:

Range of credits (percentages)	Numerical grade	ECTS grade
90,00 – 100,00	Excellent (5)	A
75,00 – 89,99	Very good (4)	B
60,00 – 74,99	Good (3)	C
50,00 – 59,99	Sufficient (2)	D
0,00 – 49,99	Insufficient (1)	F

**Obligatory literature**

1. BosiljVukšić, V., Pejić Bach, M. (ur.) i sur.: Poslovna informatika, Element, Zagreb, 2012.;
2. Grundler, D. i sur.: Windows 7, Office 2010 (Syllabus 5.0), Pro-mil, Varaždin, 2011.;
3. Birnbaum, D., Vine, M.: Excel VBA Programming for the Absolute Beginner, 3rd Edition Thomson Course Technology, 2007;
4. Manuals and guides for applying software tools; teaching materials.

**Additional literature**

1. Čerić, V, Varga, M. i sur.: Informacijska tehnologija u poslovanju, Element, Zagreb, 2004.;
2. Panian, Ž.: Poslovna informatika, Informator, Zagreb, 1999.

