

## I. STUDY TIME FUND

Number of weeks										
Course	Employment Auditor	Exam sessions	Learning practices	Internship	Specializing practice	Pre-degree internship	Diploma design	State exam	Vacations	Everything
I	30	9							13	52
II							20			

## II. LEARNING PROCESS PLAN

ECTS course code **T CT No**

- **T** – type of educational qualification : **B** – “bachelor's”, **M** – “master's”, **P** – “ recognition training for bachelor's degree holders from other majors ”;
- **XXXXX** – specialty code
- **I** - additional symbol for language of instruction ( **e** -English, **f** -French, **g** -German)
- **No** – serial number of the course;

Lectures ( **L** ), seminars ( **SU** ), laboratory exercises ( **LU** ), total classroom work ( **AO** ); exam ( **I** ), ongoing assessment ( **TO** ); course project ( **KP** ), coursework ( **Coursework** )

No	DISCIPLINE	Weekly timetable						Control				Code of disciplines	ECTS credits
		L	SU	LU	Audit . total	Outside audit.	Total	And	IT	CP	CR		

### SEMESTER I

1	Computational Intelligence in Games 2	30	0	30	60	120	180	1		1		MCSTg01	6
2	Selected chapters from IT security III	30	0	0	30	150	180	1				MCSTg02	6
3	Compulsory-elective course (List 1)*	30	0	30	60	120	180	1				MCSTg0Z	6
4	Elective course (List 2)	30	0	30	60	120	180	1			1	MCSTg04	6
5	Key Competencies III	30	0	30	60	120	180		1			MCSTg05	6
	<b>Total</b>	<b>150</b>	<b>0</b>	<b>120</b>	<b>270</b>	<b>630</b>	<b>900</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>1</b>		<b>30</b>

### SEMESTER II

6	Selected chapters from IT security IV	30	0	30	60	120	180	1				MCSTg06	6
7	Compulsory-elective course (List 3)*	30	0	30	60	120	180	1				MCSTg07	6
8	Elective course (List 4) (List 4)	30	0	30	60	120	180	1			1	MCSTg08	6
9	Elective course (List 5) **(List 1a)	30	0	30	60	120	180	1				MCSTg09	6
10	Group project in the specialty	0	30	0	30	150	180			1		MCSTg10	6
	<b>Total</b>	<b>120</b>	<b>30</b>	<b>120</b>	<b>270</b>	<b>630</b>	<b>900</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>1</b>		<b>30</b>

**SEMESTER III**

<b>11</b>	Master's thesis		MCSTg11	<b>30</b>
	<b>Total</b>	<b>20 WEEKS</b>		<b>30</b>

\* Students choose from List 1 and List 3 disciplines with the same last digit of the ECTS code.

**MAIN PARAMETERS OF THE CURRICULUM:**

1. Duration of study – 1.5 years, 3 semesters
2. Classroom occupancy according to the curriculum
  - 2.1 Total – 540 hours.
  - 2.2 Lectures – 270 hours
  - 2.3 Seminar exercises – 30 hours
  - 2.4 Laboratory exercises – 240 hours
3. Out-of-classroom employment according to the curriculum - 1260 hours
4. Full-time employment according to the curriculum - 1800 hours.
5. Total number of academic subjects – 10
  - 5.1. Mandatory – 5,
  - 5.2. Compulsory electives – 2,
  - 5.3. Freely selectable - 3
6. Control
  - 6.1. Exams – 8 pcs.
  - 6.2. Current assessments – 1 pc.
  - 6.3. Course projects – 2 pcs.
  - 6.4. Coursework – 2 pieces.
7. Total number of credits under ESNTK - 90

## LISTS OF ELECTIVE DISCIPLINES

<b>List 1 - MCSTg03 ( ECST Credits – 6 )</b>		
1	Technical Logistics I	MCSTg0 3.1
2	Modern Telecommunications	MCSTg0 3.2
3	Design and programming of technological processes	MCSTg0 3.3
4	Computer Vision and Deep Learning	MCSTg0 3.4
5	Product Lifecycle Management Systems	MCSTg0 3.5
6	Open architectures for engineering automation	MCSTg0 3.6
7	Sensory structuring of multidimensional reality	MCSTg0 3.7
<b>List 2 - MCSTg04 ( ECST Credits – 6 )</b>		
1	Assistive robotics	MCSTg04.1
2	Computational geometry	MCSTg04.2
3	Data processing with R	MCSTg04.3
4	Fundamentals of semantic technologies	MCSTg04.4
5	Intelligent data analysis	MCSTg04.5
6	Finding common patterns	MCSTg04.6
7	Plastic patterns and technologies /glyptics/	MCSTg04.7
<b>List 3 - MCSTg07 ( ECST Credits – 6 )</b>		
1	Technical Logistics II	MCSTg0 7.1
2	Communication network management	MCSTg0 7.2
3	Finishing methods	MCSTg0 7.3
4	Applied deep learning	MCSTg0 7.4
5	Product development	MCSTg0 7.5
6	Scrum in practice	MCSTg0 7.6
7	Sensory construction of graphical interfaces	MCSTg0 7.7
<b>List 4 - MCSTg08 ( ECST Credits – 6 )</b>		
1	Discrete simulation	MCSTg0 8.1
2	Methods for analyzing and protecting information security	MCSTg0 8.2
3	Software testing	MCSTg0 8.3
4	Process management	MCSTg0 8.4
5	Creative analysis of plastic forms	MCSTg0 8.5
<b>List 5 - MCSTg09 ( ECST Credits – 6 )</b>		
1	Communication technology for computer scientists	MCSTg09.1
2	Real-time operating systems	MCSTg0 9.2
3	Developing clean code	MCSTg0 9.3
4	Advanced Machine Learning	MCSTg0 9.4