

DESCRIPTION OF STUDY COURSE

Course unit title	Cybercrime Investigations														
Programme	MBA in Cybersecurity Management														
Year of study	1.,2.														
Academic year	2022/2023														
Level of course unit (e.g. first, second or third cycle)	2nd cycle														
Course unit code	MKP011														
Name of lecturer(s)	Arnis Paršovs, Dr. Bruno Martužāns														
Number of ECTS credits allocated	6 ECTS <i>2 Latvian credit points are multiplied by 1,5 to get ECTS credit points</i>														
Credit points	4CP														
Module	Technical														
Language of instruction	English and Latvian														
Type of course unit (compulsory, optional)	compulsory														
Semester when the course unit is delivered	2., 4.														
Mode of delivery	face-to-face														
Aim of Course	to develop knowledge, skills and practises about cyber-crimes, principles and practices to the collection, preservation, examination, analysis and presentation of digital evidence.														
Preliminary knowledge (prerequisites and co-requisites)															
Course content	Investigations, forensics; cyber criminals history; randomness, hash functions, symmetric and asymmetric cryptography, encryption, authentication methods, secure private key storage, digital signatures.														
Planned learning activities and teaching methods	<p>The student attends lectures, completes practical work, presents group and individual work.</p> <p>The total evaluation of the course consists of: 30% group work in classroom setting; 20% practical work in classroom setting; 20% group work completion and presentation; 30% individual work completion and presentation.</p> <table border="1" data-bbox="598 1579 1460 1892"> <thead> <tr> <th>Teaching methods</th> <th>Student workload</th> </tr> </thead> <tbody> <tr> <td>Lecture</td> <td>48</td> </tr> <tr> <td>Written group work</td> <td>24</td> </tr> <tr> <td>Seminars</td> <td>48</td> </tr> <tr> <td>Independent work/ work on a presentation</td> <td>72</td> </tr> <tr> <td>Work at the library, independent studies</td> <td>48</td> </tr> <tr> <td>total hours</td> <td>240</td> </tr> </tbody> </table>	Teaching methods	Student workload	Lecture	48	Written group work	24	Seminars	48	Independent work/ work on a presentation	72	Work at the library, independent studies	48	total hours	240
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Learning outcomes of the course unit	<p>The student:</p> <ol style="list-style-type: none"> 1. understands different practices to the collection of digital evidence; 2. is able to implement appropriate security controls; 3. is able to handling the incident. 														

Assessment methods and criteria	Learning outcomes	1.	2.	3.
	The form of assessment			
	Written work in a classroom	●	●	
	Independent work and its presentation	●	●	●
Written examination	●	●	●	
Recommended or required reading	<p>Naval Postgraduate School: CyberCiege: “Cryptography Basics” http://www.cisr.us/cyberciege/movies/07CIEGE.html Gary C. Kessler’s An Overview of Cryptography http://www.garykessler.net/library/crypto.html#pkc http://www.cl.cam.ac.uk/~rja14/book.html Intrusion Detection with SNORT: Advanced IDS Techniques Using SNORT, Apache, MySQL, PHP, and ACID Rafeeq Ur Rehman 2003 Snort IDS and IPS Toolkit (Jay Beale's Open Source Security) Brian Caswell, Jay Beale, Andrew Baker 2007 The Cyber-crime Science http://wwwhome.ewi.utwente.nl/~pieter/CCS/ Details history of cybercrime - http://www.news.appstate.edu/2014/02/04/cyber-crime/ New US Cybersecurity Framework Developed by NIST Features COBIT 5 in the Core - http://www.isaca.org/About-ISACA/Press-room/News-Releases/2014/Pages/New-US-Cybersecurity-Framework-Developed-by-NIST-Features-COBIT-5-in-the-Core.aspx http://www.isaca.org/Knowledge-Center/Research/Pages/Cybersecurity.aspx http://www.isaca.org/Knowledge-Center/Research/Pages/Privacy.aspx</p>			
Recommended optional programme components	To be agreed at the start of the course.			