CAS Cyber Security Masterclass (IRM, ISO, NIST, CISSP)
Autumn 2024

Start: 07.11.2024
End: 24.01.2025

Version 20.12.2023, Subject to change

BootCamp 1: Cyber Threat and managing Cyber Risk

Date		Time	Place	Topic	Lecturer
Thu	07.11.24	8.45am to 4.45pm	Online	1. Course opening (administrative and social) and "into darkness" – a trip into the dark side of technology, incl. setting of connectors to further course content ("lively", i.e., practice-oriented course overview) and communication of goals as well as synchronization of terminologies (initial steps, to be continued in further course days) and expectations [individual assignments]	Prof. M. Dalla Vecchia Rainer Kessler
Fr	08.11.24	8.45am to 4.45pm	Online	2. Security governance: CISO organization, processes, and staffing, incl. ISMS and IS policy; information and technology risk management, as well as its position in the operational and enterprise risk environments [individual assignments]	Rainer Kessler
Sa	09.11.24	8.45am to 4.45pm	Online	3. NIST CSF: overview of tiers, core, and profiles; information and cyber security controls, assessments, reviews, and audits, incl. control systems, common criteria (ISO/IEC 15408), maturity models, as well as COBIT, ISO 27001, and other standards; case-study kick-off [group formation and start of group work (workshop)]	Rainer Kessler

BootCamp 2: Technical Foundations - Part 1

Date		Time	Place	Topic	Lecturer
Thu	21.11.24	8.45am to 4.45pm	Online	4. Attack patterns and practice examples; hacking tactics/causes and effects of a cyber-attack – sequential order of events and reactions, incl. attribution, recovery, and lessons learned, as well as "connectors" (cf., 6) to technological detailed level (e.g., encryption) [practice day with individual assignments and group work (workshop)]	Frank Schefter
Fr	22.11.24	8.45am to 4.45pm	Online	5. "Blockchain-Game" practice day with "connectors" to hashing and encryption	Prof. Dr. W. Dettling
Sa	23.11.24	8.45am to 12.00pm	Online	6. (am) PKI, e-signatures, timestamps, DRM, and taking up the "connectors" from day 5, as well as positioning and work of CERT, SOC, and SIEM [individual assignments and group work (workshop)]	Frank Schefter
Sa	23.11.24	01.00pm to 4.45pm	Online	6. (pm) PKI, e-signatures, timestamps, DRM, and taking up the "connectors" from day 5, as well as positioning and work of CERT, SOC, and SIEM [individual assignments and group work (workshop)	Rainer Kessler

Bootcamp 3: Technical Foundations - Part 2

Date	Time	Place	Topic	Lecturer
Thu 05.12.24	8.45am to 4.45pm	Online	7. Mobile security and penetration testing/red teaming [practice day with individual assignments and group work (workshop)]	Frank Schefter
Fr 06.12.24	8.45am to 4.45pm	Online	8. Threat intelligence and reconnaissance [practice day with individual assignments and group work (workshop)]	Frank Schefter
Sa 07.12.24	8.45am to 4.45pm	Online	9. Logical and physical access, incl. identity and roles management as well as credentials and multi-factor authentication, zero-trust, and vulnerability management [individual assignments and group work (workshop)]	Johannes Dohren Rainer Kessler

BootCamp 4: Complementary Cybersecurity Elements

Date	Time	Place	Topic	Lecturer
Thu 19.12.24	8.45am to 4.45pm	Online	10. (am) Information and communication technology strategy, architecture, configuration, and operation, incl. selected technical details of a functioning of ICT in traditional as well as in cloud environments [individual assignments and group work (workshop)]	Rainer Kessler
Fr 20.12.24	8.45am to 4.45pm	Online	10. (pm) Information and communication technology strategy, architecture, configuration, and operation, incl. selected technical details of a functioning of ICT in traditional as well as in cloud environments [individual assignments and group work (workshop)]	Frank Schefter
Sa 21.12.24	8.45am to 12.00pm	Online	11. Further security technology, such as data loss prevention, intrusion detection, etc. [individual assignments and group work (workshop)]	Frank Schefter
Sa 21.12.24	01.00pm to 4.45pm	Online	12. Escalation and business continuity management [individual assignments and group work (workshop)]	Rainer Kessler

BootCamp 5: Exploring the Context of Cybersecurity

Date	Time	Place	Topic	Lecturer
Thu 09.01.25	8.45am to 4.45pm	Online	13. Information and cyber security awareness, education, and training [individual assignments and group work (workshop)]	Rainer Kessler
Fr 10.01.25	8.45am to 4.45pm	Online	14. Cyber security of emerging technology, incl. A.I. safety [individual assignments and group work (workshop)]	Rainer Kessler
Sa 11.01.25	8.45am to 4.45pm	Online	15. Laws and regulations for data protection, information and cyber security, as well as IT security and technology risk management [individual assignments and group work (workshop)]	Rainer Kessler
Sa 18.01.25	9.00 am	Online	ISO 27001: Foundation Exam ISFS (EXIN) Participants receive a voucher	Prof. M. Dalla Vecchia
Sa 18.01.25			Deadline Project MoneyMaker	
Fr 24.01.25	8.45am to 4.45pm	Online	16. Project Pitch: Cybersecurity & Information Risk Management Framework (ISMS) in front of (1) Management Board and (2) Expert Committee	Audit Team