

Distance Learning

| Semester | | | Module | Module Code | Credit Points | Type of Assessment |
|-----------------------|--------------|--------------|---|----------------------|---------------|--|
| FT | PT I | PT II | | | | |
| 1. Semester (Level 4) | 1. Semester | 1. Semester | Operating Systems, Computer Networks, and Distributed Systems | LIBFEXDLBIBRVS_E | 15 | Exam |
| | | | Introduction to Programming with Python | LIBFEXDLBDSIPWP | 15 | Exam |
| | 2. Semester | 2. Semester | Mathematics: Analysis | LIBFEXDLBDSMFC | 15 | Exam |
| | | | Statistics - Probability and Descriptive Statistics | LIBFEXDLBDSPPDS-01 | 15 | Exam |
| 2. Semester (Level 4) | 3. Semester | 3. Semester | Collaborative Work | LIBFOARPDLCSCW | 15 | Oral Assignment + Reflection Paper |
| | | | Fundamentals of Data Protection and Cyber Security | LIBFEXDLBCSIDPITS | 15 | Exam |
| | 4. Semester | 4. Semester | Introduction to Network Security | LIBFEXDLBCSEINF_E | 15 | Exam |
| | | | System Pentesting Basics | LIBFEXDLBCSESPB_E | 15 | Exam |
| 3. Semester (Level 5) | 5. Semester | 5. Semester | Introduction to Academic Work for IT and Tech | LIBFAWDLBIAWITT | 15 | Advanced Workbook |
| | | | Algorithms, Data Structures, and Programming Languages | LIBFAWDLBCSL-01 | 15 | Advanced Workbook |
| | 6. Semester | 6. Semester | Theoretical Computer Science and Mathematical Logic | LIBFAWDLBCSTCSML | 15 | Advanced Workbook |
| | | | Secure Software Development and Common Software Weaknesses | LIBFWACSDLBCSEDCSW_E | 15 | Written Assessment: Case Study |
| 4. Semester (Level 5) | 7. Semester | 7. Semester | Cryptography | LIBFAWADLBCSCT | 15 | Written Assessment: Written Assignment |
| | | | Host and Digital Forensics | LIBFWACSDLBCSEHSF_E | 15 | Written Assessment: Case Study |
| | 8. Semester | 8. Semester | Elective A1 | | 15 | |
| | | | Elective A2 | | 15 | |
| 5. Semester (Level 6) | 9. Semester | 9. Semester | Information Security Standards | LIBFWAWADLBCSEISS_E | 15 | Written Assessment: Written Assignment |
| | | | Seminar: Ethical Considerations in Data Science | LIBFWAREDLBDSSECDSDS | 15 | Written Assessment: Research Essay |
| | 10. Semester | 10. Semester | Elective B1 | | 15 | |
| | | | Elective B2 | | 15 | |
| 6. Semester (Level 6) | 11. Semester | 11. Semester | Elective C1 | | 15 | |
| | | | Elective C2 | | 15 | |
| | 12. Semester | 12. Semester | Bachelor Thesis | LIBFBTDLBBT | 30 | Bachelor Thesis |
| | | | Total | | 360 | |

Electives

| Elective A | Elective B | Elective C |
|--|--|--|
| <p><i>IT Law</i></p> <p><i>Intercultural and Ethical Decision-Making</i></p> <p><i>Artificial Intelligence</i></p> <p><i>Project: AI Excellence with Creative Prompting Techniques</i></p> <p><i>Social Engineering and Insider Threats</i></p> <p><i>Project: Social Engineering</i></p> <p><i>Internship I</i></p> <p><i>Internship II</i></p> | <p>Data Analysis & Business Intelligence</p> <p>IT Operations & Project Management</p> <p>Software Engineering</p> <p>Cloud Programming and Computing & Data Engineering</p> <p>Future Threats & IT Security Consulting</p> <p>Pentesting & Host Forensics</p> | <p><i>Advanced Data Analysis</i></p> <p><i>Project: Data Analysis</i></p> <p><i>IT Service Management</i></p> <p><i>Project: IT Service Management</i></p> <p><i>Techniques and Methods for Agile Software Development</i></p> <p><i>Project: Agile Software Engineering</i></p> <p><i>Cloud Programming</i></p> <p><i>Cloud Computing</i></p> <p><i>Requirements Engineering</i></p> <p><i>Threat Modeling</i></p> <p><i>Principles of Ethical Hacking</i></p> <p><i>Project: Pentesting</i></p> |
| | | <p><i>Business Intelligence</i></p> <p><i>Project: Business Intelligence</i></p> <p><i>IT Project Management</i></p> <p><i>IT Architecture Management</i></p> <p><i>Seminar: Software Engineering</i></p> <p><i>Project: Software Development</i></p> <p><i>Data Engineering</i></p> <p><i>Project: Data Engineering</i></p> <p><i>Technical and Operational IT Security Concepts</i></p> <p><i>Project: Configuration and Application of SIEM Systems</i></p> <p><i>Static and Dynamic Malware Analysis</i></p> <p><i>Seminar: Sandbox Interpretation</i></p> |

FT: Full-Time, 36 months
PT I: Part-Time I, 48 months
PT II: Part-Time II, 72 months

The sequence of the modules is to be strictly followed

~ Electives: You can choose two elective modules from each elective area. You can freely choose these modules or follow our suggested combinations to stay in a specific subject area (only relevant for elective areas B and C). In total, a subject area consists of four elective modules.