

# CURRICULUM B.SC. CYBER SECURITY, ENGLISH, FULL-TIME (72 MONTHS)



INTERNATIONALE  
HOCHSCHULE  
FERNSTUDIUM

Semester	Module	Course Code	Course Name	ECTS	
1. Semester 15 ECTS	Operating Systems, Computer Networks, and Distributed Systems	DLBIBRV501_E	Operating Systems, Computer Networks, and Distributed Systems	5	E
	Introduction to Data Protection and IT Security	DLBCSIDPITS01	Introduction to Data Protection and IT Security	5	E
	Mathematics: Analysis	DLBDSMFC01	Mathematics: Analysis	5	E
2. Semester 20 ECTS	Introduction to Academic Work	DLBCSIW01	Introduction to Academic Work	5	WB
	Introduction to Programming with Python	DLBDSIPWP01	Introduction to Programming with Python	5	E
	Statistics - Probability and Descriptive Statistics	DLBDSPPDS01	Statistics - Probability and Descriptive Statistics	5	E
	Mathematics: Linear Algebra	DLBDSMFLA01	Mathematics: Linear Algebra	5	E
3. Semester 15 ECTS	Collaborative Work	DLBCSCW01	Collaborative Work	5	OA
	Object Oriented and Functional Programming with Python	DLBDSOFP01	Object Oriented and Functional Programming with Python	5	P
	Introduction to Network Forensics	DLBCSEINF01_E	Introduction to Network Forensics	5	E
4. Semester 15 ECTS	Requirements Engineering	DLBCSRE01	Requirements Engineering	5	E
	System Pentesting Basics	DLBCSESPB01_E	System Pentesting Basics	5	E
	Introduction to the Internet of Things	DLBINGEIT01_E	Introduction to the Internet of Things	5	E
5. Semester 15 ECTS	Intercultural and Ethical Decision-Making	DLBCSIDM01	Intercultural and Ethical Decision-Making	5	WACS
	IT Project Management	DLBCSEITPA01	IT Project Management	5	E
	DevSecOps and Common Software Weaknesses	DLBCSEDCSW01_E	DevSecOps and Common Software Weaknesses	5	WAWA
6. Semester 15 ECTS	Algorithms, Data Structures, and Programming Languages	DLBCSL01	Algorithms, Data Structures, and Programming Languages	5	E
	Statistical Computing	DLBDBSC01_E	Statistical Computing	5	WACS
	Cryptography	DLBCSCT01	Cryptography	5	E
7. Semester 15 ECTS	IT Law	DLBCSIITL01	IT Law	5	WACS
	Host and Software Forensics	DLBCSEHSF01_E	Host and Software Forensics	5	E
	Specification	DLBCSS01	Specification	5	E
8. Semester 15 ECTS	Artificial Intelligence	DLBDSEAIS01	Artificial Intelligence	5	E
	IT Service Management	DLBCSITSM01	IT Service Management	5	E
	Seminar: Current Topics in Computer Science	DLBCSSCTCS01	Seminar: Current Topics in Computer Science	5	WARE
9. Semester 10 ECTS	Advanced Data Analysis	DLBDSEDA01	Advanced Data Analysis	5	E
	Project: Data Analysis	DLBDSEDA02	Project: Data Analysis	5	P
10. Semester 15 ECTS	Cloud Computing	DLBDSCC01	Cloud Computing	5	E
	ELECTIVE I**		e.g. Social Engineering	10	
11. Semester 20 ECTS	ELECTIVE II**		e.g. Cloud Security	10	
	ELECTIVE III**		e.g. Cyber Threat Intelligence	10	
12. Semester 10 ECTS	Bachelor Thesis	DLBBT01	Bachelor Thesis	9	WABT
		DLBBT02	Colloquium	1	PC
<b>Total 180 ECTS</b>	<b>GOAL: In order to stay on schedule, you should finish modules of about 15 Credit Points per semester!</b>				

You've already planned out exactly how your course schedule should look? Wonderful! You can work on a number of modules at the same time or one by one.

As you begin your studies, choose modules that are of particular interest to you or that you can use directly in your job. This motivates you and helps you succeed right from the start.

A module with two courses consists of an introduction and a consolidation. In order to successfully complete a module, you must successfully pass both the introduction and the consolidation of the module within the framework of a module examination.

- Elective III:**
- IT Security Consulting
  - Social Engineering
  - Host Forensics
  - DevSecOps
  - Security in Complex Networks
  - Network Forensics
  - Business Intelligence
  - Future Threats
  - Cloud Security
  - Pentesting
  - Industrial Systems Technology
  - Cyber Threat Intelligence
  - Mobile Threats
  - Supply Chain Management
  - Smart Factory
  - Automation and Robotics
  - Mobile Software Engineering

**NOTE:**  
Every elective module can only be chosen once.

\* All the modules that have been unlocked for the Online Exams can be found in CARE.

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- E** Exam (monthly at study centres or anytime via the online exam\*)
  - OA** Oral Assignment
  - P** Portfolio
  - PC** Presentation: Colloquium
  - WB** Workbook
  - WABT** Written Assessment: Bachelor Thesis
  - WACS** Written Assessment: Case Study
  - WARE** Written Assessment: Research Essay
  - WAWA** Written Assessment: Written Assignment
  - WB** Workbook

- \*\* ELECTIVES  
- Choose three modules**
- Elective I:**
- IT Security Consulting
  - Social Engineering
  - Host Forensics
  - DevSecOps
  - Security in Complex Networks
  - Network Forensics
- Elective II:**
- Business Intelligence
  - Future Threats
  - Cloud Security
  - Pentesting
  - Industrial Systems Technology
  - Cyber Threat Intelligence
  - Mobile Threats