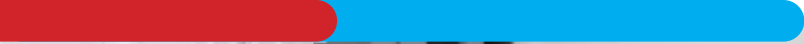




INFORMATION  
TECHNOLOGY :  
CYBER SECURITY



Our Partner:



sgu.ac.id

## About IT - Cyber Security

Discover SGU IT's Bachelor's program in Cyber security, an exclusive specialization within our Information Technology curriculum. It is meticulously designed to equip students with the knowledge and skills needed to comprehend, analyze, and fortify against the ever-evolving landscape of cyber threats and attacks in the digital world. Students will have an opportunity to delve into essential facets such as Core Cyber Security Concepts, Technical Proficiencies, Security Policies, Compliance Strategies, Cyber Threat Intelligence, Secure System Design, Network Security, and Cyber Security Management. Our mission is to nurture forward-thinking experts poised to lead the charge in safeguarding our virtual realms. Embark on this transformative educational adventure with us, and together, we'll shape the future of Cyber Security.

### Why IT - Cyber Security

A cyber security major immerses students in cutting-edge digital defense, integrating emerging technologies like AI and blockchain to counter evolving threats. Emphasizing ethical hacking, students learn to identify vulnerabilities, navigating legal frameworks in simulated cyber-attacks. In-depth malware analysis equips them to dissect and counter malicious code, while cyber threat intelligence training enables proactive strategies against potential threats. This comprehensive skill set prepares graduates to safeguard digital infrastructure effectively. Armed with expertise in emerging technologies, ethical hacking, malware analysis, and cyber threat intelligence, they navigate the dynamic cyber security landscape adeptly, making them valuable assets in defending against diverse cyber threats.

### Career Prospect

- **CYBERSECURITY ANALYST:**  
Focusing on the analysis and implementation of security measures to protect computer systems and networks.
- **ETHICAL HACKER/PENETRATION TESTER:**  
Identifying vulnerabilities through authorized simulated attacks, enhancing overall system security.
- **SECURITY CONSULTANT:**  
Providing expert advice, assessing risks, and developing comprehensive security strategies for organizations.
- **INCIDENT RESPONDER:**  
Managing and mitigating the impact of security incidents, responding swiftly to cyber threats.
- **SECURITY ARCHITECT:**  
Designing secure computer systems, networks, and applications to prevent potential threats.
- **SECURITY ENGINEER:**  
Implementing and maintaining security solutions, including firewalls, encryption, and intrusion detection systems.
- **THREAT INTELLIGENCE ANALYST:**  
Collecting and analysing data to provide insights into potential cyber threats, aiding proactive defence strategies.

Alumni of the Information Technology Study Program have been accepted into top-tier firms, and the study program has established industry partnership with:



### International Academic Experience:

- Joint Degree Program with **Fachhochschule Südwestfalen** (approx. 7 months), or **Hochschule Albstadt-Sigmaringen** (approx. 12 months), results in earning both Sarjana Komputer (S.Kom.) and Bachelor of Engineering (B.Eng.) degrees.
- Internship program to ensure students receive global professional experience.
- Experience student exchange in several European and Asian countries.
- Accelerate Success with the **SGU-University of Missouri - Kansas City** Fast Track Program

# CURRICULUM

DOUBLE DEGREE  
Academic Year 2024/2025

## SEMESTER 1

English 1  
Algorithms and Object-Oriented Programming & Lab  
Data Science Programming Language  
Relational Database Design & Lab  
Discrete Mathematics  
Web Design Fundamental  
Analytical & Creative Thinking  
Statistics for Data Science  
Linux Fundamental & Computer Network  
**Extracurricular Courses**  
German Language and Culture 1

## SEMESTER 3

English 3  
Client-side Front-End Web Development  
Personal & Professional Development  
Non-Relational Database Design & Lab  
Advanced Object-Oriented Programming  
Computer Security & Lab  
UI/UX Design & Evaluation  
Back-end System Administration  
**Extracurricular Courses**  
German Language and Culture 3

## SEMESTER 5

**JOINT DEGREE (HOCHSCHULE ALBSTADT-SIGMARINGEN)**  
Social Engineering  
Introduction to Cyberpsychology  
Digital Forensics  
Offensive Security Methods  
Cyber Security Awareness and Behaviour  
IT Security Management  
Mobile and Cloud Forensics  
**Extracurricular Courses**  
German as Foreign Language  
**JOINT DEGREE (FACHHOCHSCHULE SÜDWESTFALEN)**  
Internship 1

## SEMESTER 7

English 5  
Research Methodology  
Bahasa Indonesia  
Data Mining  
Native Mobile App Development & Lab  
Secure Software Development Life Cycle  
Data Science using Python  
Ethical Hacking  
Malware Analysis  
Cyber Threat Intelligence  
**OPTIONAL FOR JOINT DEGREE (FACHHOCHSCHULE SÜDWESTFALEN)**  
English 5  
Research Methodology  
Bahasa Indonesia  
Internship in Germany

## SEMESTER 2

English 2  
Data Structures & Algorithms  
Server-side Web Programming  
Web Development Life Cycle Project  
Introduction to Entrepreneurship  
Ethics & Religious Philosophy  
Linear Algebra for Data Science  
Probability for Data Science  
System Admin & Maintenance  
**Extracurricular Courses**  
German Language and Culture 2

## SEMESTER 4

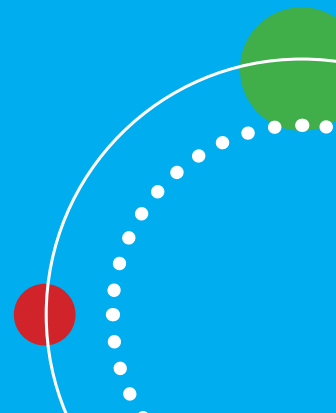
English 4  
Back-End Web Development & tools  
Framework-based Web Programming  
Pancasila & Civic  
Network Security & Lab  
Mobile Web Service & API (Middleware)  
Introduction to Artificial Intelligence and Laboratory  
Emerging Technology in Cybersecurity  
**Extracurricular Courses**  
German Language and Culture 4

## SEMESTER 6

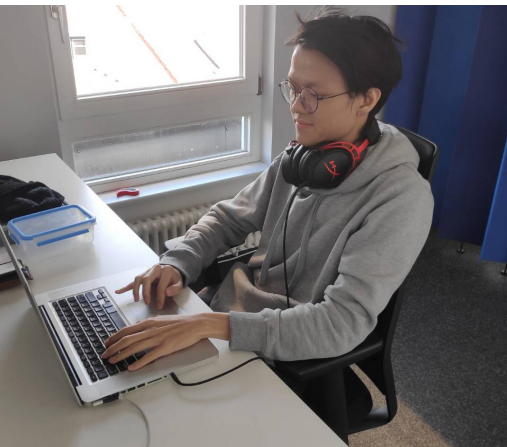
**JOINT DEGREE (HOCHSCHULE ALBSTADT-SIGMARINGEN)**  
Internship 2 (6 Months)  
**JOINT DEGREE (FACHHOCHSCHULE SÜDWESTFALEN)**  
Basics of Electrical Engineering  
Introduction to Project Management  
Model Based Design  
Internship 2 / Project-Based Learning (1,5 Months)  
**Elective Subjects**  
Current Developments in Business IT: Basics in Python  
Advanced Programming  
Information Systems (IS) Project

## SEMESTER 8

Thesis  
Professional Competence Assessment (PCA)  
Character and Professional Development Program (CPDP)  
Cross-Platform Mobile App Development



# INTERNSHIP EXPERIENCES



Contact Us:

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