

Security of Computer Systems

BACHELOR'S DEGREE - SPECIALITY

Form: Full-time

Study form: Hybrid • Traditional (on-site)

Features: Engineer's degree • From October • English • 7 semesters

City: Warszawa



What will you learn?

- You will learn to diagnose and assess **threats in computer systems**, enabling you to effectively counteract their impact.
- You will learn the principles of **computer systems analysis**, which will allow you to create information security strategies (ISS).
- You will master the implementation of **security solutions** such as electronic signatures, PKI, and protections for networks and operating systems.
- You will learn to develop **data security procedures**, which will enhance your competences in protecting sensitive information.
- You will discover techniques for creating **secure software**, enabling you to build applications resistant to threats.
- You will manage risks related to **the security of hardware and network services**, ensuring the stability of IT systems.

Work opportunities

- You can become an **IT security specialist**, protecting systems and data against cyber threats.
- As an **information systems security auditor**, you will analyse safeguards and implement recommendations to improve protection.
- You can work as an **IT systems administration specialist**, responsible for configuring and maintaining network infrastructure.
- You can work as an **expert in the installation and servicing of security systems**, protecting data and devices against unauthorised access.
- You can take on the role of a **technical security manager**, overseeing protection activities in large organisations.
- As a **teleinformation security specialist**, you will design and develop systems resistant to network threats.

Additional, important information about the specialisation

You will have classes with practitioners who work daily with information system security. Under their guidance, you will deepen your ability to diagnose and solve security-related problems and learn how to implement best practices so that computer systems are more secure.



Study program

Practical studies

We teach in a way that prepares you as well as possible for the real challenges you will encounter in your professional work.

- **Group projects** - real business problems.
- **Simulations** - decisions in market conditions.
- **Internships and placements** - experience in companies.
- **Lectures with practitioners** - market experts.
- **Modern tools** - up-to-date technologies.
- **Case studies** - analysis of real cases.

Selected major-specific courses

- Linear algebra
- Object-oriented programming
- Operating systems
- Process mapping and design (UML and BPMN)
- Discrete mathematics
- Fundamentals of databases
- Fundamentals of artificial intelligence and expert systems
- Innovation and the future of the IT industry
- Automation and robotics
- Advanced programming
- Design of information systems

Selected specialization courses

- Technical security management
- ICT security
- Quality and security management



- ICT network management
- IOT security
- IT systems security auditing
- Data protection and access control

Foreign language study

In full-time studies:

- 120 hours of foreign language learning (30 hours per semester) from the 1st to the 4th semester.

Form of delivery:

All classes are conducted on campus with a language teacher.

In part-time studies:

- 120 hours of foreign language learning (30 hours per semester) from the 1st to the 4th semester.

Form of delivery:

- 16 hours of classes in a classroom with a language teacher (weekend sessions)
- 14 hours delivered in an e-learning format

Languages to choose from: English, German, Spanish.

Internships and practical training

Student internships are an important part of the study program. Students of bachelor's and long-cycle master's studies complete 960 hours of internships (24 weeks), gaining professional experience. If you work in a profession related to your field of study, you can have your internship credited based on your employment. During your studies, you also have the opportunity to take a paid internship. Internship programs are designed by cooperating employers, tailoring requirements to specific positions, which helps you take your first professional steps.

Study completion requirements

You create a major project that addresses a practical or theoretical problem related to your field of study. By studying literature and conducting your own analyses, you work on an original problem-solving proposal. Everything you learn during your studies enables you to create a professional project based on real data and actions. To earn your bachelor's degree, you must defend this project before a committee. You set the direction of your own project!



Programme partners



How to become a WSB Merito University student

You can enroll in a **first degree (e.g. Bachelor's or Engineer's) program** if you have successfully completed your secondary education and have a secondary school-leaving certificate.

[Learn more](#)

Take the first step - register now!

Applicants are admitted on a first-come first-served basis. If you are to complete your secondary education this year, or you are studying for your first degree but have not yet earned it, **you can secure a place with us by signing up online.** Your educational service contract can be drawn up later as you have collected all of the required documents. [Create an account or log in](#)

People's statements

Embark on a captivating journey with Bilge, a bright and ambitious student from Turkey, as she shares his remarkable experiences of pursuing higher education at WSB Merito University in Poland.

Bilge Narzymiski