CYBERSECURITY

university diploma course

Western Balkans Cyber Capacity Centre

utt UNIVERSITÉ DE TECHNOLOGIE TROYES

MEMBER OF

EUT+ EUROPEAN UNIVERSITY OF TECHNOLOGY

CYBERSECURITY UNIVERSITY DIPLOMA COURSE

WB3C launches a 1-year course in cybersecurity leading to an international qualification

In partnership with the University of Technology of Troyes (UTT), WB3C launches a one-year academic diploma course focused on practical cybersecurity skills for the Western Balkans. This course, worth 60 ECTS, may lead to a Bachelor's degree following UTT's validation of candidates' prior credits (at least 120 ECTS).

WB3C is the regional platform for cybersecurity cooperation and capacity building. It provides advanced training, policy dialogue and curriculum development to enhance cyber resilience across the Western Balkans.

Why this program

Cyber and cyber-enabled crimes, systemic digital risks, and skills shortages require rapid upskilling. This diploma course develops practitioners who can secure systems and networks, detect and respond to incidents, and work within EU legal and regulatory frameworks.

Outcomes

- Operate and secure IT systems and networks
- Apply cryptography and data protection
- Develop and audit secure software
- Detect, investigate, and respond to incidents
- Navigate EU law, regulation and ethics

1 DURATION
1 academic year or 10 weeks of classroom instruction across 2026

2 METHODS
Lectures, labs, case studies, Capture-the-Flag (CTF) exercise

3 ASSESSMENT
Continuous assessment, supervised project defense, internship report

4 WORKING LANGUAGE
English

5 LOCATION
WB3C Podgorica, Montenegro

Target Roles

- Security administrator
- SOC analyst
- Junior penetration tester
- Digital forensics technician
- Cybersecurity auditor

COURSE OVERVIEW:

Semester 1 — Fundamentals and practical skills

1. Introduction to Cybersecurity
Concepts, threat landscape, actors and standards (ISO 27001, NIST, GDPR)

2. Secure Systems and Networks
Linux/Windows administration, network security (firewalls, VPNs, IDS/IPS), secure protocols (TLS, SSH, IPsec)

3. Cryptography and Data Security
Symmetric/asymmetric crypto, digital signatures, PKI, key management, data encryption

4. Secure Software Development
Secure coding in C/Python/Java, OWASP Top 10, code review, DevSecOps

5. Law, Regulation, and Ethics
EU regulations, cybercrime, responsibilities, professional conduct

Semester 2 — Advanced topics and professionalization

1. Audit and Penetration Testing
Methodologies (OSSTMM, PTES), OSINT and Reconnaissance, tools (Nmap, Metasploit, Burp Suite), audit reporting

2. Infrastructure and Cloud Security
Virtualization and cloud (AWS/Azure/GCP), container security (Docker/Kubernetes), IAM

3. Monitoring and Incident Response
SIEM and SOC operations, attack detection, digital forensics, DRP/BCP

4. Supervised Cybersecurity Project
Real-life case or simulation (e.g., SME audit, SOC implementation), teamwork, final defense

5. Professional Internship (12–16 weeks)
Placement in public administration, university or company in the six Western Balkan economies; application of skills and final report

PREREQUISITE KNOWLEDGE & SKILLS

Operating Systems Basics:

- Familiarity with command-line interfaces (CLI) for both Windows and Linux.
- Basic understanding of user permissions, file systems and system processes.

Networking Fundamentals:

- A solid understanding of the TCP/IP model (what happens at each layer).
- Knowledge of common network protocols (e.g., HTTP, DNS, SSH, TLS).
- Understanding the basic function of network hardware like routers, switches and firewalls.

Programming/Scripting Literacy:

- Basic programming concepts (variables, loops, functions, data types) in at least one language.
- Basic knowledge of Python for automation and scripting.
- Familiarity with C or Java would be beneficial.

Understanding of core cybersecurity principles

- Confidentiality, integrity, availability (CIA triad), authentication and encryption basics.
- Ability to follow the course and technical documentation in English.

TRAINING SCHEDULE

Prep 1 3-14 NOV	Prep 2 1-12 DEC	Weeks 1 & 2 9-20 FEB	Weeks 3 & 4 6-17 APR
Weeks 5 & 6 8-19 JUN	Weeks 7 & 8 7-18 SEP	Internship tbc	Final exam tbc

KEY DATES:

- Deadline to designate attendees: 29 October 2025
- Preparation course blocks: 3–14 November 2025 and 1–12 December 2025
- Full course starts in February 2026

ENTRY REQUIREMENTS:

- Be a national of one of six Western Balkan countries (mandatory)
- Possess pre-requisite knowledge and skills specified on the previous page (mandatory)
- Have at least one of the following:
  - Hold a Bachelor's degree or higher in information technology or closely related field
  - Be currently enrolled in the 3rd or 4th year of a Bachelor program in information technology or closely related field
  - Be currently enrolled in a Master's degree program relevant to IT or cybersecurity
  - Possess a recognized qualification or certification in IT, network security or cybersecurity (even if the qualification is not part of the formal qualification framework).
- Advantage will be given to early career professionals working in the public sector with 0-3 years of experience. The maximum places on the course is 20.
- All candidates will receive a pre-selection test on Moodle immediately upon application. Best 20 candidates will be selected for the course.

TEACHING PARTNER:

University of Technology of Troyes (UTT)
A leading French public institution in cybersecurity education and research with applied training for law enforcement and industry.

COST:

Travel and full board accommodation for selected participants outside of Montenegro will be covered by WB3C.

CONTACT:

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NB: This publication describes the one-year diploma curse in Cybersecurity delivered with UTT.
Syllabus, sequencing and teaching weeks may adjust during delivery.
Full attendance and engagement in the course is expected from all participants in order to qualify for the final exam and certification process.

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