Intro to Cybersecurity & Tech Career Training Online Course

🎓 What Students Will Receive:

By the end of this course, students will:

- Learn foundational tech skills in the areas of Cybersecurity, Coding, AI, and Data Analysis
- Be prepared to take entry level Cybersecurity certification exams such as the ISC2 Certified in Cybersecurity (CC) exam
- Gain relevant and employable skills through hands-on projects that utilize Python and JavaScript Coding, Microsoft Excel, and Cybersecurity tools
- Build a professional resume and online portfolio
- Receive mentorship and job readiness training from certified tech professionals, including mock interviews and recommendation letters

🗓️ 10-Week Course Syllabus

Week	Theme	Topics Covered	Project
Week 1	Cyber Foundations	Cybersecurity basics, CIA triad, types of attacks	Review, analyze, and prepare a Cybersecurity Case study on a recent Cyber crime
Week 2	Business Continuity	Disaster recovery, risk management, backups	Design a Business Continuity Plan for a fictional company
Week 3	Identity & Access	Authentication, authorization, MFA, IAM	Build an Access Control Matrix using logic and flowcharts

Week	Theme	Topics Covered	Project
Week 4	Network Defense	Firewalls, VPNs, intrusion detection, SIEM tools	Simulate a network defense strategy using diagrams and logs
Week 5	Incident Response & Forensics	Incident lifecycle, log analysis, response plans	Analyze a breach using Excel: filter logs, calculate response time, chart trends
Week 6	Threats & Vulnerabilities	Malware types, CVEs, threat intelligence	Build a Threat Matrix in Excel: match vulnerabilities to exploits, visualize risk
Week 7	Exam Prep & Capstone	Review, final project work, mock interviews	Final Project: Cybersecurity Case Study with coding and data analysis
Weeks 8-10	Career Development	Resume building, LinkedIn, job roles, interview prep	Create a tech career portfolio, post resume on Indeed, research internships, paid jobs and volunteer opportunities

🗓️ Weekly Syllabus Overview

Week 1: Cybersecurity Foundations

Topics Covered:

- Introduction to cybersecurity
- Threats, vulnerabilities, and risks
- CIA Triad and basic cyber hygiene

Activities:

- Cybersecurity vocabulary quiz
- Labex.io: Python intro project
- Case study: Famous data breach analysis

Week 2: Business Continuity & Risk Management

Topics Covered:

- Security policies and procedures
- Business Impact Analysis (BIA)
- Disaster recovery and risk frameworks

Activities:

- Draft a business continuity plan for a fictional company
- Labex.io: Python conditional logic
- Quiz: Risk management principles

Week 3: Identity & Access Management

Topics Covered:

- Authentication methods (MFA, passwords)
- Access control models (RBAC, DAC)
- Privilege escalation and management

Activities:

- Labex.io: JavaScript form validation
- GitHub project: Role-based access setup
- Quiz: IAM concepts

Week 4: Network Security & Defense

Topics Covered:

- Firewalls, IDS/IPS, VPNs
- Secure protocols and encryption
- Network segmentation and defense layers

Activities:

- Design a secure network diagram
- Labex.io: Python networking basics
- Quiz: Network security tools

Week 5: Incident Response & Forensics

Topics Covered:

- Incident response lifecycle
- SIEM tools and log analysis
- Digital forensics and evidence handling

Activities:

- Analyze logs using open-source SIEM
- Labex.io: JavaScript debugging challenge

- Students will create an incident response log

Week 6: Threats & Vulnerabilities

Topics Covered:

- Malware types and behaviors
- Social engineering tactics
- Vulnerability scanning tools

Activities:

- Use Nmap for threat profiling
- Labex.io: Python malware and network detection simulation
- Quiz: Threat vectors and countermeasures
- Build a simple dashboard showing threat categories and severity

Week 7: ISC2 CC Exam Prep

Topics Covered:

- Review of ISC2 CC domains
- Flashcards and mock exam
- Test-taking strategies

Activities:

- Timed mock exam and practice tests
- Instructor-led review session
- Labex.io: Final coding challenge

Weeks 8-10: Career Development & Mentoring

Topics Covered:

- Resume writing and formatting
- LinkedIn and GitHub portfolio setup
- Internship prep and professional communication

Activities:

- Finalize student resume and GitHub portfolio
- Participate in mock interview
- Prepare Student letter of recommendation
- Update resume on Indeed
- Set up LinkedIn page

- Research jobs, internship opportunities, and volunteer opportunities