

# POST GRADUATE DIPLOMA

## CYBER SECURITY



DEPARTMENT OF SKILL DEVELOPMENT  
RAYAT-BAHRA UNIVERSITY  
Chandigarh-Ropar NH 205  
Greater Mohali, Punjab, India 140103



Admissions Hotline  
**+91-932-414-0446**

## CYBER SECURITY PG DIPLOMA

### Eligibility

- Bachelor's degree in
  - Computer Science
  - Computer Engineering
  - Electronics
  - Electrical Engineering
  - Any engineering degree
- Fluent English Speaking
- Interview based selection

### Program Highlights

- Internationally recognized faculty
- Duration of certification: 1 year
- Certification includes Advanced 3 months course work in Israel or USA
- A high-tech sector with global opportunities
- Hands on practical training
- Internship possibilities with leading Cyber Security companies

# ADMISSION OPEN FOR 2023-2024

THE ONE-YEAR CERTIFICATION WILL OFFERS EXCEPTIONAL EDUCATION

The program offers an interactive curriculum, practical learning at our partner university labs with an exceptional teaching faculty.

## CYBER SECURITY PG DIPLOMA

In cybersecurity, you'll be on the front lines of a company's digital defense. Be part of the team that is protecting the companies systems and sensitive data from cyber-attacks. The cybersecurity field offers robust career and financial opportunities and plenty of available jobs.

## GET THE SKILLS YOU NEED TO FIGHT CYBERCRIME

Through the unique one year PG Diploma powered by ThriveDX platform, you'll gain the tools to land a job in one of the world's fastest-growing industries.

## THE DEMAND FOR CYBER TALENT

As of late 2022, there were more than 700,000 cyber jobs available in the U.S., according to CyberSeek, with nearly 30,000 of them designated for entry-level professionals.



**CONTACT US**





[www.ajuba.us](http://www.ajuba.us)



**RAYAT-BAHRA  
UNIVERSITY**

Chandigarh



[www.rayatbahrauniversity.edu.in](http://www.rayatbahrauniversity.edu.in)

## IN THE PROGRAM, WE EMPOWER YOU WITH CYBERSECURITY SKILLS

### Exceptional employment possibilities in high demand industry

The global annual cost of cybercrime is predicted to reach \$8 trillion annually in 2023. The next five years are due to see a 15% increase in cybercrime costs reaching 10.5 trillion by 2025. Various reports have shown that cybercrime was up 600% due to the COVID-19 Pandemic. It is estimated that worldwide, cybercrimes will cost \$10.5 trillion annually by 2025. Ransomware was 57X more destructive in 2021 than it was in 2015. In India, small businesses are at the highest risk of ransomware attacks accounting for around 54% of total attacks from January 2020 to July 2022.

### A High-Tech Sector

The curriculum is recognized by CertNexus for CyberSec First Responder® and prepares learners with the core knowledge certified by CompTia for Security+. Graduates can take these optional exams at a special discounted price.

### Hands-on learning

To ensure they get to practice what they learn, we have developed over 100 different hands-on lab exercises. Technical skills, frameworks, and tools are taught through hands-on exercises in a safe virtual environment.

### Personalized, high-touch mentoring

Mentoring by dedicated faculty members who know their students and offer individual course, career, and professional advising.



### Average Salaries

The average entry-level Cybersecurity Analyst salary in Dallas is \$83,200 USD (Lightcast™, 2022).

### Internship

Get Internship possibilities in USA, Canada, Israel, Taiwan, South Korea and India with our partners

## TYPICAL JOBS

Cyber Defense Analyst

Cyber Incident Responder

Cyber Forensics Analyst

Network Operations Specialist

Cyber Infrastructure Support Specialist

IT auditor

## ABOUT THRIVEDX

ThriveDX from Israel is the global leader in cybersecurity education, and an expert in providing cybersecurity training to upskill and reskill lifelong learners. Our teams are made up of military trained cyber experts, industry veterans and seasoned educators united to close the worldwide skills and talent gap in cybersecurity. ThriveDX's award-winning solutions exist to bridge the skills gap and impact the talent shortage in the cybersecurity and overall tech industry.



### Largest Network Of Cyber Experts

Leveraging 15 years of experience in training, ThriveDX's award-winning solutions exist to close the skills gap in cybersecurity. ThriveDX caters to the global workforce by arming lifelong learners with the tools to succeed, and equip them with market-driven skills delivered by industry leaders. ThriveDX are united with Ajuba as partners by a common goal of tackling the cybersecurity skills gap and building a diverse talent pipeline through our vast suite of security training.

## Our Course Includes

### INDUSTRY DRIVEN CONTENT

Developed by subject matter experts, the course focuses on industry aligned content and the most relevant skills sought by employers. Learners will gain foundational cybersecurity knowledge and practical hands-on skills as well as exposure to industry tools.

### A UNIQUE LEARNING EXPERIENCE

Intro to Cybersecurity leverages modern learning methodologies and instructional design, providing students with an engaging and effective learning experience and a perfect beginning in cybersecurity. The course is built around a real-world Olympics cyber-attack scenario and takes learners on a journey to save the Olympics from cyber criminals and experience firsthand the life of a cyber analyst.

### CYBER EDUCATION, SIMPLIFIED

Intro to Cyber is browser-based and doesn't require any installations for educators or learners. This turnkey course integrates with all types of LMS and can be easily added to an existing semester program to enhance the current curriculum. Its online delivery provides students with flexibility in their choice of learning style and time management.



# PROGRAM OUTLINE

## MONTH 1

- **CYB-101: Introduction to Cyber Security**
- **GEN-501: Strength, Weakness and Skill Development**
- **GEN-503: Communications**

## MONTH 2

- **CYB-201: Prework**
- **CYB-202: Bootcamp Introduction**
- **CYB-203: Network Administration**
- **GEN-502: Value and Ethics at Workplace**
- **GEN-503: Communications**

## MONTH 3

- **CYB-203: Network Administration**
- **CYB-204: Cybersecurity Fundamentals**
- **GEN-504: Teamwork**
- **GEN-503: Communications**

## MONTH 4

- **CYB-205: Network and Application Security**
- **CYB-206: Cloud Security**
- **GEN-505: Positive and Professional Attitude**
- **INT-604: Visa Preparations**

## MONTH 5

- **CYB-207: Incident Handling**
- **GEN-506: Stress Management at Work**
- **INT-604: Visa Preparations**

## MONTH 6

- **CYB-208: Forensics**
- **GEN-507: Conflict Resolution at Work**
- **INT-604: Visa Preparations**



# PROGRAM OUTLINE

## MONTH 7

- **CYB-209: Malware Analysis**
- **CYB-210: Ethical Hacking & Incident Response**
- **GEN- 508: SKILL Connections**
- **INT-603: Resume Builder**

## MONTH 8

- **CYB-211: Threat Intelligence**
- **GEN- 508: SKILL Connections**
- **INT-603: Resume Builder**

## MONTH 9

- **CYB-212: Final Overview and Preparation exercises**
- **GEN- 508: SKILL Connections**
- **INT-603: Resume Builder**

## MONTH 10

- **GEN- 508: SKILL Connections**
- **INT-605: Travel and Trip Prep**
- **SPEC-701: Advanced Short Course in USA or Israel (Class and Lab)**

## MONTH 11

- **SPEC-701: Advanced Short Course (Class and Lab)**  
A 10 week short course in USA or Israel

## MONTH 12

- **SPEC-701- Advanced Short Course (Class and Lab)**  
A 10 week short course in USA or Israel

## MONTH 13 ONWARDS

- **A paid six month internship**



# SKILL PROGRAM OUTLINE

## CYB-101 INTRODUCTION TO CYBERSECURITY

- **Cybersecurity Procedures**
- **Common Security Threats**
- **Social Engineering**
- **World of Malwares**
- **Types of Attacks**
- **Attacker Types and Motivation**
- **Advanced Persistent Threats**
- **Cyber Kill Chain**
- **Web Hacking & OWASP 10**
- **Ethical Hacking**
- **Authentication Method**
- **Security Products**
- **Digital and Network Forensics**
- **Wireshark**
- **Risk Management**
- **Attack Investigation**
- **Cybersecurity Career Paths**

## CYB-201 PREWORK

- **Network Configuration – LAN, WAN**
- **Segmentations, VLANs and Subnetting**
- **Network Mapping Tools**
- **Troubleshooting and Monitoring Networks**
- **Network Devices – Switches, Routers**
- **Telecommunication**
- **System Administration**

## CYB-202 BOOTCAMP INTRODUCTION

- **Overview of Bootcamp and Cybersecurity Industry**
- **Cybersecurity Career Paths**
- **Pework Content Review tration**



# SKILL PROGRAM OUTLINE

## **CYB-203 NETWORK ADMINISTRATION**

- **Network Configuration – LAN, WAN**
- **Segmentations, VLANs and Subnetting**
- **Network Mapping Tools**
- **Troubleshooting and Monitoring Networks**
- **Network Devices – Switches, Routers**
- **Telecommunication**
- **System Administration**
- **TOOLS: Cisco Packet Tracer, Nmap, Windows PowerShell**

## **CYB-204 CYBERSECURITY FUNDAMENTALS**

- **NIST Framework**
- **Malware Types**
- **Social Engineering**
- **Vulnerabilities, Risks, and Exploits**
- **Famous Cyber-Attacks**

## **CYB-205 NETWORK AND APPLICATION SECURITY**

- **Cryptography – Symmetric vs Asymmetric Keys**
- **Encryption\Decryption, Hash functions**
- **Security Architecture**
- **Security Tools – Firewalls, Antivirus, IDS\IPS, SIEM**
- **Access Control Methods, Multi-factor Authentication, Authentication Protocols**
- **Honeypots and Cyber Traps**
- **TOOLS: Kali Linux, Splunk, Snort IDS, Active Directory, Nmap, OpenVPN, Windows Firewall, Linux iptables**

## **CYB-206 CLOUD SECURITY**

- **Universality of cloud computing**
- **Find new risks, and learn how to mitigate them**
- **Breaches on Cloud Computing**
- **Cloud security**





# SKILL PROGRAM OUTLINE

## CYB-207 INCIDENT HANDLING

- **Detection and Analysis of Cyber-Attacks – DDos\Dos, Brute-Force**
- **OSWAP Top 10 Attacks – SQL Injection, Cross-Site Scripting**
- **Group and Individual Incident Report Writing**
- **TOOLS: Splunk**

## CYB-208 FORENSICS

- **Computer Memory Forensics, Memory Dump Analysis**
- **FTK Imager, Autopsy, Redline and RAM capturing**
- **Digital Evidence Acquisition Methodologies**
- **Registry Forensics**
- **Windows Timeline Analysis and Data Recovery**
- **Network Forensics, Anti-Forensics and Steganography**
- **TOOLS: Uolatility Framework, FTK Imager, Autopsy, NetworkMiner, Wireshark, OpenStego, ShellBags Explorer, winmd5free, Magent RAM Capture, Redline, HxD**

## CYB-209 MALWARE ANALYSIS

- **Dynamic Malware Analysis, Reverse Engineering and Malware Obfuscation**
- **Fileless Malware Analysis**
- **Containment, Eradication and Recovery Malware Stages**
- **Android APK Analysis**

## CYB-210 ETHICAL HACKING AND INCIDENT RESPONSE

- **Ethical Hacking Processes and Methodologies**
- **Network Hacking, Reconnaissance, Google Hacking and Locating Attack Vectors**
- **Exploitation Techniques**
- **Web Application Hacking, OWASP Top 10 – XSS, SQL Injection, Manual and Automated Attacks**
- **Post Incident Activity**



# PROGRAM OUTLINE

## CYB-211 THREAT INTELLIGENCE

- **Threat Intelligence Cycle Methodology and Industry Implementation**
- **Google Hacking – Operators, Finding Sensitive Data, Directory Listing, Devices and Hardware**
- **Dark Web and Dark Market Investigation**
- **Online Anonymity using Metadata, Google Cache, UPN and Tor**
- **Trend Analysis, Basic Excel Data Analysis**
- **Industrial Tool Practice in Real Environment**

## CYB-212 FINAL SCENARIOS AND INTERVIEW PREP

- **Final Hands-on Scenarios and Final Exam**
- **Course Summary and Bootcamper Presentations**
- **Technical and Soft-Skill Preparation for Job Interviews**

## GEN-501: STRENGTH, WEAKNESS AND SKILL DEVELOPMENT

- **Do you currently know your own strengths? Do you know how to cultivate your positive traits?**
- **Who we are as individuals and the unique skills we possess can change and grow throughout our lives, making us better people and employees.**
- **The first step in this growth process includes identifying traits and qualities about us and others.**
- **To improve, we must first understand ourselves and then consider how best to make change.**

## GEN-502: VALUE AND ETHICS AT WORKPLACE

- **What connection do values and ethics have with business?**
- **What part do you as an employee play in a company's ethical practice? The straightforward truth in any business: if a company doesn't earn money, it won't stay open.**
- **Being able to make the right choices, whether in an easy circumstance or a difficult one, is a great soft skill to build. This is called being ethical.**



# PROGRAM OUTLINE

## GEN-503: COMMUNICATIONS

- **Research-related topics will be presented such as library search techniques, contemporary issues, ethics, patent considerations, small business.**
- **Individuals who communicate well open the door for opportunities in both their career and personal life.**
- **Communication is an important soft skill that helps people get and maintain employment. Managers around the country look for employees who communicate well with others to positively grow their work environments.**
- **This course is designed to build your understanding of what it takes to be a good communicator, and to supply you with the knowledge to practice and use these skills in the workforce.**
- **opportunities, technical writing, technical reviews, effective presentations, etc.**

## GEN-504: TEAMWORK

- **Teamwork is necessary for success in the workforce. Very few jobs exist where a person works entirely alone.**
- **In almost all careers, people work alongside others to accomplish a shared goal. Since most jobs require many types of interaction, teamwork is a crucial soft skill to possess. If a person works well with others, that tells an employer that the employee is valuable, and many employers work hard to retain valuable employees.**

## GEN-505: -POSITIVE AND PROFESSIONAL ATTITUDE

- **Your internal thoughts and attitudes can impact your work environment. Employees who are motivated and have positive attitudes can make a bigger impact on company goals and provide better experiences for customers.**
- **Having a positive professional attitude makes you the type of person employers want to keep, as they know employees with healthy attitudes tend to be more dependable, helpful, and driven.**



# PROGRAM OUTLINE

## GEN-506: STRESS MANAGEMENT AT WORK

- **Being able to manage stress in a healthy and productive way is an important skill that helps you navigate struggles in both your personal and professional life.**
- **By managing stress effectively, you show employers and customers that even though things can be tough, you know how to handle the situation without making things worse in the process.**

## GEN- 508: SKILL CONNECTIONS

- **Students participate in experiential learning opportunities designed to launch them into their career.**
- **Speakers from various sectors will present their journey and sectors opportunities.**

## INT-601: INTERNSHIP PREPARATION

- **This course will prepare students for both the job search and employment.**
- **Students will learn strategies for conducting a successful job search, including the preparation of resumes and cover letters; behavioral interviewing techniques and effective use of social media in the application process.**

## INT-602: INTERVIEWING SKILLS

- **End-To-End Understanding of The Interview Process. the Goal Is the Perfect Your Interviewing Skills in An Effort to Secure a New Job.**
- **Learn how To Sell Your Knowledge, Skills, Experience, and Character to Demonstrate that You Are the Right Person for The Job.**
- **Soft-Skills that Will Help Them Stand out In an Interview. You Will Learn how To Create a Narrative that Will Help Sell Yourself for The Job.**
- **A Mastery of All Basis Interviewing Skills Including how To Develop a Power Presence for Your Interview.**



# PROGRAM OUTLINE

## **INT-603: RESUME BUILDER**

- **Understand the true purpose of a resume**
- **Understand how to eliminate "fluff" from a resume**
- **Develop the ability to analyze the needs of an employer, and match your resume to those needs**
- **Learn how to appropriately format a resume and create a visually impressive document**
- **Feel confident about the resume you have written! That confidence goes a LONG way in an interview**

## **INT-604: UISA PREPARATIONS**

- **There is no shortcut to passing your visa interview and putting an effort for applying.**
- **Preparation for the visa application and practice answering for answering to the embassy interview questions.**

## **SPEC-701 USA OR ISRAEL ADVANCED SHORT COURSE**

- **This 10-week course provides a comprehensive, hands-on educational experience in cybersecurity through a combination of lectures and cleanroom lab work in USA or Israel.**
- **Participants not only learn about advanced cybersecurity, but are also exposed to a latest lab work.**