3 MONTH || JANUARY 14TH

PROGRAM OUTLINE

NON TECHNICAL TOPICS:

- Cyber Policy & Ethics
- Cyber History
- International Relations

"THE HACKER SIMULATOR IS DESIGNED FOR STUDENTS INTERESTED IN PURSUING: **CYBERSECURITY, COMPUTER SCIENCE, ENGINEERING, DEPARTMENT OF DEFENSE, INTELLIGENCE, CYBER POLICY, OR CONSULTING IN THE TECH INDUSTRY."**

3 LEVELS

CADET JUNIOR VARSITY VARSITY

BEGINNERS

CADETS

Cadet level students will use live simulation labs and exercises to gain an overall sense of different skills used and applied in the cyber realm. These fundamental and introductory topics open the gateway for learning more about complex systems, web applications, investigation methodology and tactics, cybersecurity awareness, and career exploration.

WHAT IS THE HACKER SIMULATOR?

DATE

January 14th | 3 months | Meet 90 minutes on Tuesdays and Thursdays after school.

HOW

Join our amazing virtual Discord community and follow along with experts streaming from our live broadcast studio. Work in small groups with a dedicated coach to learn cyber.

WHO

All skill levels | Form a small team with your friends or make new ones to compete against teams around the world in our virtual cybersecurity simulations and CTF's.

EXPERTS

Talks from industry experts in the government and private sector.

WHAT DO YOU LEARN

Learn the technical skills used in cybersecurity from coaches in small groups. Check our syllabus below!

WHY

Cybersecurity is the tool that will ensure the safety of our society. Cybersecurity is a skill required to truly master computer science. This program will give you a major edge in the application process for college computer science program admissions. Cyber is the fastest growing job market in the technology sector forecasted for the next 10 years.

SPEAKER TOPICS

- Ethics in Information Technology
- Cybersecurity Awareness
- Internet of Things (IoT)
- The History of Encryption
- Historic Hacks and Famous Hackers
- Emerging Technologies & Social Media
- Artificial Intelligence
- Getting into the Cloud
- Jobs in Cybersecurity
- Certifications in Cybersecurity

INTRODUCTION LABS

INTRODUCTION TO WIRESHARK

OBJECTIVE

The objective of this course is to learn how to use network traffic analyzer software by analyzing network traffic in real time, troubleshooting network issues, and identify faulty network media types, including Ethernet, Wireless LAN, Bluetooth, USB, & more.

LEARNING OUTCOMES

- Troubleshoot network problems
- Examine security problems
- Verify network applications
- Debug protocol implementations
- Learn network protocol internals

GENERAL COURSE TOPICS

- Capture live packet data
- Open files containing packet data captured with tcpdump/WinDump and Wireshark
- Analyze hex dumps
- Search, filter, and export packets
- Colorize packet display and statistics

SPEAKERS

MARCUS J. CAREY

Cybersecurity Entrepreneur

NSA | Navy | ReliaQuest

BASMA BASEM

Sr. Security Program Mgr.

Microsoft

INTRODUCTION LABS

INTRODUCTION TO WIFI HACKING & IOT

OBJECTIVE

The objective of this course is to learn about how different IoT devices used in our daily lives are connected and how to deal with different threat scenarios by performing security assessments.

LEARNING OUTCOMES

- Discovering vulnerabilities
- Identifying risks and threats
- Repairing weak networks
- Ensuring wireless networks are secure

GENERAL COURSE TOPICS

- Introduction to wireless technologies and protocols
- Wireless infrastructure attacks
- Wireless client attacks
- Building your lab and attack hardware
- Aircrack-ng
- Cracking WEP
- Hacking WPA
- Performing wireless reconnaissance
- Evil twins and rogue access points
- Bluetooth security assessment and monitoring
- NFC security assessment
- Wireless defenses
- Performing security assessments of IoT devices
- Mobile device security
- Hacking Android devices
- Hacking iOS device

SPEAKERS

JIMMY VO

Datadog

Detection Engineer | Security Research

DAVID ZANCA

Former C.I.O. FedEx

Founder Spainwood Consulting

INTRODUCTION LABS

FUNDAMENTALS OF NETWORKING

OBJECTIVE

The objective of this course is to introduce the concepts of networking technologies for local area networks (LAN), wide area networks (WAN), and wireless networks.

LEARNING OUTCOMES

- Demonstrate use of networking mathematics, terminology, and models.
- Explain the fundamental principles and concepts of the seven-layer OSI model.
- Analyze and troubleshoot multiple-layer problems of the seven-layer OSI model for troubleshooting.
- Construct and test cabling for LANs and WANs

GENERAL COURSE TOPICS

- Network Hardware and Protocols
- LANs, WANs, and the OSI model
- Cabling, IP Addressing, and Subnetting
- Network Security

SPEAKERS

CARLOTA SAGE

Chief Information Security Officer

Fractional CISO

SEVA EPSTEYN

Network Security Master
Super Computing
Internet Network Architect

INTRODUCTION LABS

INTRODUCTION TO CRYPTOLOGY

OBJECTIVE

The objective of this course is to secure data and communication using symmetric and asymmetric encryption.

LEARNING OUTCOMES

- Distinguish modern-day cryptography from ancient cryptography
- Compare different security notions for private- and public-key encryption
- Apply security notions for private- and public-key authentication

GENERAL COURSE TOPICS

- Confidentiality, Data Integrity, Authentication, Non-repudiation
- Cipher Systems
- History of Cryptology
- Basics Cryptanalysis
- Symmetric Encryption and Message Confidentiality
- Public-Key Cryptology and Message Authentication
- Cryptography and Policy

SPEAKERS

B'ASIA SETTLES

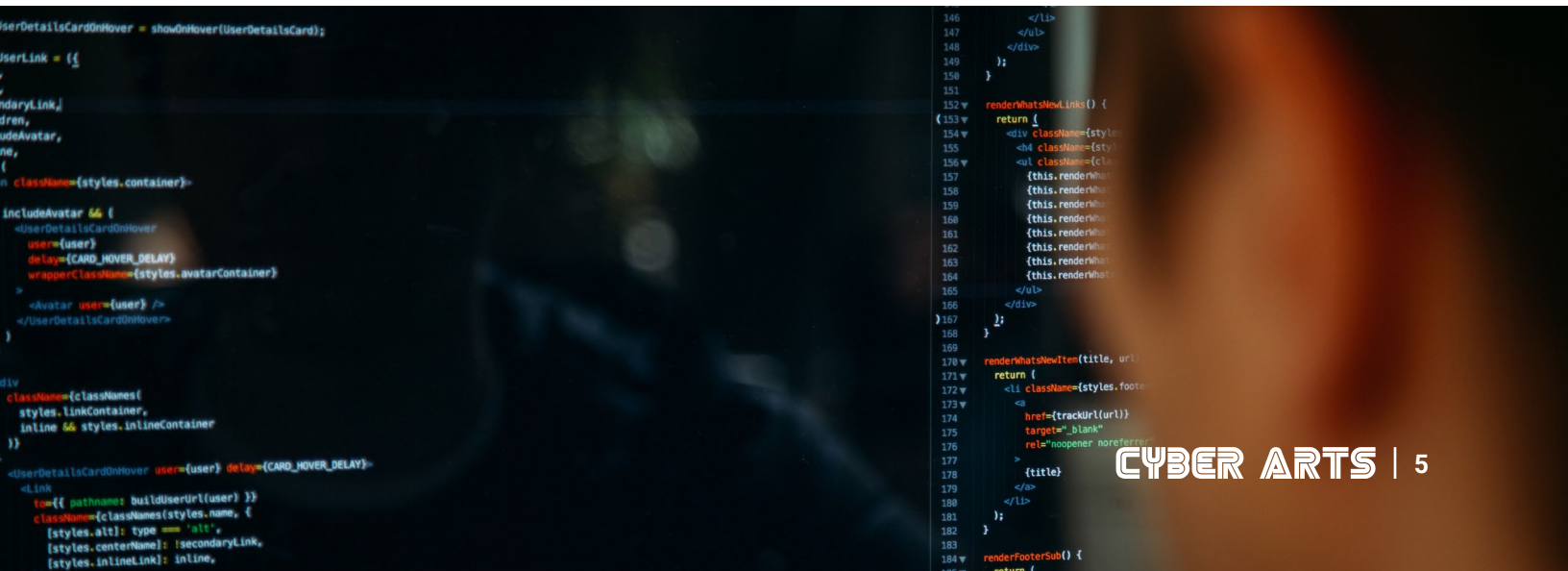
Digital Ethics & Policy Expert

Smart Cities Cyber Consultant

GENE KOGAN

Artificial Intelligence Expert

NYU A.I. Professor



INTRODUCTION LABS

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GENERAL COURSE TOPICS

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INTRODUCTION TO LINUX

OBJECTIVE

The course objective is to analyze fundamentals of the Linux operating system, including installation, configuration, administration, file management, and security.

LEARNING OUTCOMES

- Understand the concept and purpose of “open source”
- Explain the different distributions of Linux
- Use Linux commands to manage files and file systems
- Create and execute BASH scripts
- Explain the structure of the Linux operating system
- Establish user accounts and permissions

GENERAL COURSE TOPICS

- Intro to Linux and open source software
- Linux installation and configuration
- Linux file systems, commands and text editors
- Linux file system management
- Linux file system administration
- The Bash Shell in Linux
- Linux system initialization and X Windows
- Managing Linux processes
- Administrative tasks in Linux
- Linux servers and network

FUNDAMENTAL LABS

FUNDAMENTALS OF COMPUTER TROUBLESHOOTING

OBJECTIVE

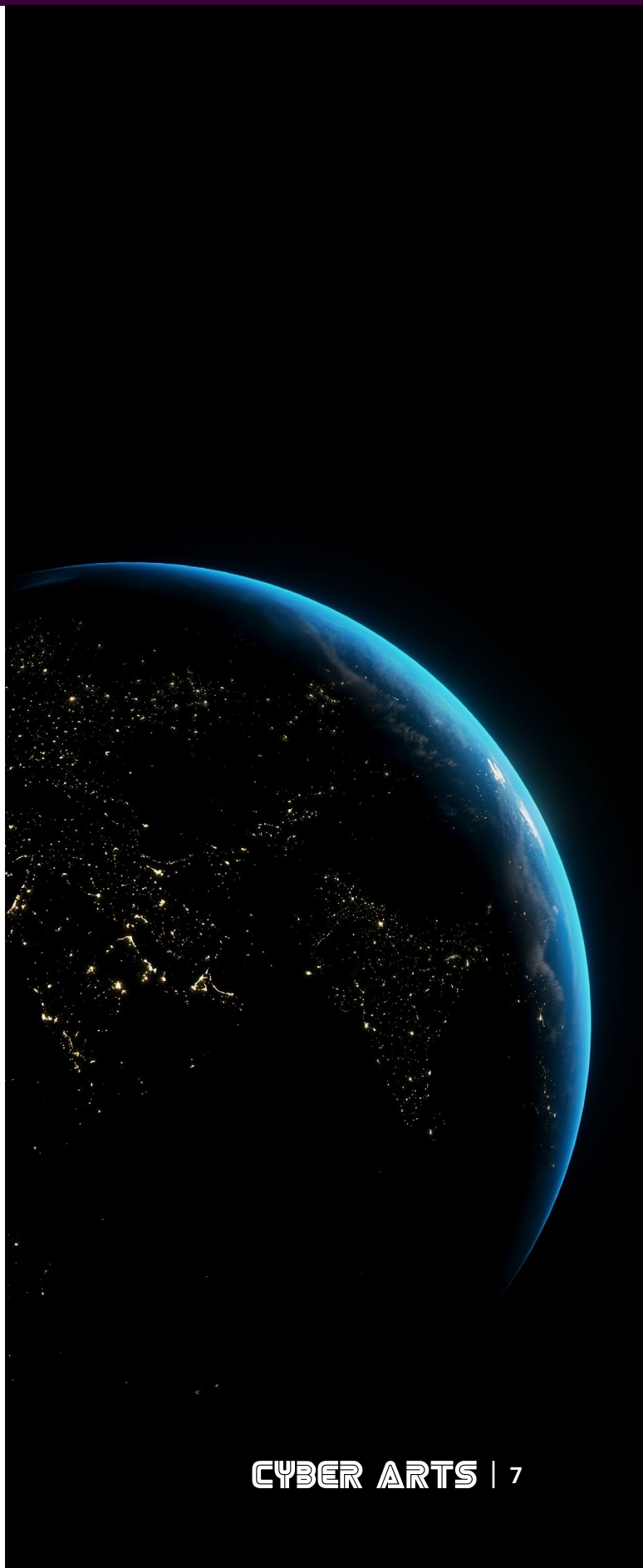
The objective of this course is to evaluate, install, configure, maintain, and troubleshoot computer hardware components and operating systems.

LEARNING OUTCOMES

- Learn how to maintain and optimize operating systems
- Troubleshoot network hardware and services to diagnose problems
- Assess the need for computer system hardware
- Install and configure computer system hardware
- Install and configure PC software
- Troubleshoot computer system hardware and software
- Use appropriate safety procedures when working with computing equipment

GENERAL COURSE TOPICS

- The Computing Process
- Troubleshooting Theory
- Operating System Overview
- Diagnostics
- Backups, Updates, and Utilities



LEARN MORE

Hacker Simulator official Site
Register here

CONTACT

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Schedule a Meeting Here