

Indiana University of Pennsylvania's 2023

GenCyber

STUDENT CAMP

June 12 - 16, 2023

CAMP DETAILS

- Advanced face-to-face cybersecurity camp for middle and high school students.
- Online pre-camp activity days (3/25/2023 & 4/29/2023) and post-camp activity days (9/9/2023 & 9/30/2023).
- Learn detailed information about cybersecurity.
- Learn hacking defense techniques.
- Acquire skills to land your dream job.

ADVANTAGES

- Offered at no cost!
- An Electronic Kit for each participant!
- FREE lunch and afternoon snack!(June 12-16)
- Instruction and mentorship from IUP faculty and other experts!
- Skills and knowledge for a growing career field!
- Apply **NOW** space is limited!

Through this opportunity, you will learn safe online behavior, increase knowledge of cyberspace, and explore cybersecurity

Apply today at www.iup.edu/iupgencyber

QUESTIONS?

e-mail:
gen-cyber@iup.edu

LOCATION

IUP
Main Campus

PROJECT PI

Dr. Waleed Farag, Director,
IUP Institute for Cybersecurity

THIS PROGRAM
IS PROUDLY
SPONSORED BY:



PARTICIPATION ADVANTAGES

Offered at no cost!

**An Electronic Kit for
each participant!**

**FREE lunch and
afternoon snack!
(June 12 - 16)**

**Instruction and
mentorship from
IUP faculty and
other experts!**

**Skills and
knowledge for a
growing career
field!**

HOW TO APPLY

Applications are accepted
online only. To apply or view
other important program
information, please visit:

www.iup.edu/iupgencyber

PROGRAM DATES

**In-person Camp,
June 12 - 16, 2023**

**Online pre-camp activity days
(3/25/2023 & 4/29/2023) and
post-camp activity days
(9/10/2023 & 10/1/2023).**

PROGRAM DIRECTOR

Dr. Waleed Farag
Director, Institute for Cybersecurity



Summer 2023 GENCYBER Student Camp



**Presented by:
IUP & NSA**

IUP GENCYBER

GenCyber is a national initiative that is supported by the National Science Foundation and the National Security Agency.

GENCYBER GOALS

Ignite, sustain, and increase awareness of K12 cybersecurity content and cybersecurity postsecondary and career opportunities for participants through year-round engagement

Increase student diversity in cybersecurity college and career readiness pathways at the K-12 level

Facilitate teacher readiness within a teacher learning community to learn, develop, and deliver cybersecurity content for the K-12 classroom in collaboration with other nationwide initiatives

THE FUNDED GRANT

Under the leadership of Dr. Waleed Farag, grant PI, IUP, along with a selected group of national universities, has again been awarded funding for eight years in a row to run the GenCyber program in 2023.

This year, the camp is open to middle and high school students. The prospective camp will address essential security concepts in an interesting, novel approach to foster interest in cybersecurity among middle and high school students in western Pennsylvania.

Visit www.iup.edu/iupgencyber for full grant details.

PROGRAM SUMMARY

This is a free, five-weekday day camp in summer 2023 (daily schedule from 9 AM - 3:30 PM), two online pre-camp activity days, and two online post camp activity days (daily schedule from 9 AM - 3 PM). Instruction will be delivered by a team of professors with varied backgrounds but established expertise in cybersecurity teaching and research.

The program provides a uniformly distributed, engaging blend of delivery that includes direct instruction, group activities, hands-on labs, and informal instructional techniques to individual and combined cohorts.

CAMP SCHEDULE

DAY 1: MONDAY, JUNE 12, 2023

Proudly sponsored by:



MIDDLE SCHOOL STUDENTS

112A Stright Hall (Unless Otherwise Noted)

HIGH SCHOOL STUDENTS

107 Stright Hall (Unless Otherwise Noted)

9 AM - 9:50 AM

Welcome Remarks by IUP President, Dean of KCSNM, Chair of Math & Computer Science Department, and Director of Institute for Cybersecurity
Camp Orientation and Logistics - Dr. Waleed Farag (HSS B2)

9:50 AM - 10 AM

BREAK

10 AM - 10:50 AM

Tour of the IUP Server Room and IUP Network Security Infrastructure
IUP IT Security Team

10:50 AM - 11 AM

BREAK

11 AM - 11:50 AM

Session 1.1
Programming: Ceasar Cypher Coding
Mr. David Sheeran

Session 1.1
Protecting your Network using Ad Blockers for Enhanced Security
Dr. Raj Ezekiel

11:50 AM - 1 PM

LUNCH BREAK

1 PM - 1:50 PM

Session 1.2
Programming: Ceasar Cypher Coding
Mr. David Sheeran

Session 1.2
Protecting your Network using Ad Blockers for Enhanced Security
Dr. Raj Ezekiel

1:50 PM - 2 PM

BREAK

2 PM - 2:50 PM

Session 2.1
Personal Cybersecurity with Think Like an Adversary Mindset
Ms. Jacqueline Gentile

Session 2.1
Security Achieved by Decentralization (I)
Dr. Xin-Wen Wu

2:50 PM - 3:10 PM

SNACK BREAK

3:10 PM - 4 PM

Session 2.2
Personal Cybersecurity with Think Like an Adversary Mindset
Ms. Jacqueline Gentile

Session 2.2
Security Achieved by Decentralization (I)
Dr. Xin-Wen Wu

CAMP SCHEDULE

DAY 2: TUESDAY, JUNE 13, 2023

Proudly sponsored by:



MIDDLE SCHOOL STUDENTS

112A Stright Hall (Unless Otherwise Noted)

HIGH SCHOOL STUDENTS

107 Stright Hall (Unless Otherwise Noted)

9 AM - 9:50 AM

Session 1.1
*Top Cybersecurity Terms You
Need to Know*
Ms. Lori Baker

Session 1.1
*Security Achieved by
Decentralization (II)*
Dr. Xin-Wen Wu

9:50 AM - 10 AM

BREAK

10 AM - 10:50 AM

Session 1.2
*Top Cybersecurity Terms You
Need to Know*
Ms. Lori Baker

Session 1.2
*Security Achieved by
Decentralization (II)*
Dr. Xin-Wen Wu

10:50 AM - 11 AM

BREAK

11 AM - 11:50 AM

Session 2.1
*Automating Your Job: Making
Things Faster with Code*
Dr. Kevin Slonka

Session 2.1
*Attacking Devices using
an Evil Twin*
Dr. Raj Ezekiel

11:50 AM - 1 PM

LUNCH BREAK

1 PM - 1:50 PM

Session 2.2
*Automating Your Job: Making
Things Faster with Code*
Dr. Kevin Slonka

Session 2.2
*Attacking Devices using
an Evil Twin*
Dr. Raj Ezekiel

1:50 PM - 2 PM

BREAK

2 PM - 2:50 PM

Session 3.1
*Security Achieved by
Decentralization*
Dr. Xin-Wen Wu

Session 3.1
*Automating Your Job: Making
Things Faster with Code*
Dr. Kevin Slonka

2:50 PM - 3:10 PM

SNACK BREAK

3:10 PM - 4 PM

Session 3.2
*Security Achieved by
Decentralization*
Dr. Xin-Wen Wu

Session 3.2
*Automating Your Job: Making
Things Faster with Code*
Dr. Kevin Slonka

CAMP SCHEDULE

DAY 3: WEDNESDAY, JUNE 14, 2023

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MIDDLE SCHOOL STUDENTS
112A Stright Hall (Unless Otherwise Noted)

HIGH SCHOOL STUDENTS
107 Stright Hall (Unless Otherwise Noted)

9 AM - 9:50 AM

Session 1.1
Computation Thinking
Ms. Jacqueline Gentile

Session 1.1
Whom Can We Trust? - Continuous Authentication
Dr. Xin-Wen Wu

9:50 AM - 10 AM

BREAK

10 AM - 10:50 AM

Session 1.2
Computation Thinking
Ms. Jacqueline Gentile

Session 1.2
Whom Can We Trust? - Continuous Authentication
Dr. Xin-Wen Wu

10:50 AM - 11 AM

BREAK

11 AM - 11:50 AM

Session 2.1
The Weakest Link - Social Engineering
Mr. David Sheeran

Session 2.1
Web Security with Adversary Mindset (II)
Dr. Raj Ezekiel

11:50 AM - 1 PM

LUNCH BREAK

1 PM - 1:50 PM

Session 2.2
The Weakest Link - Social Engineering
Mr. David Sheeran

Session 2.2
Web Security with Adversary Mindset (II)
Dr. Raj Ezekiel

1:50 PM - 2 PM

BREAK

2 PM - 2:50 PM

Session 3.1
Cybersecurity Threats and Trends for 2023
Ms. Lori Baker

Session 3.1
Integrity: Making Your Data Reliable
Dr. Xin-Wen Wu

2:50 PM - 3:10 PM

SNACK BREAK

3:10 PM - 4 PM

Session 3.2
Cybersecurity Threats and Trends for 2023
Ms. Lori Baker

Session 3.2
Integrity: Making Your Data Reliable
Dr. Xin-Wen Wu

CAMP SCHEDULE

DAY 4: THURSDAY, JUNE 15, 2023

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MIDDLE SCHOOL STUDENTS
112A Stright Hall (Unless Otherwise Noted)

HIGH SCHOOL STUDENTS
107 Stright Hall (Unless Otherwise Noted)

9 AM - 9:50 AM

Session 1.1
Generative AI: Opportunities and Threats in Cybersecurity
Ms. Joti Balani

Session 1.1
Enhancing Firmware Security
Dr. Raj Ezekiel

9:50 AM - 10 AM

BREAK

10 AM - 10:50 AM

Session 1.2
Generative AI: Opportunities and Threats in Cybersecurity
Ms. Joti Balani

Session 1.2
Enhancing Firmware Security
Dr. Raj Ezekiel

10:50 AM - 11 AM

BREAK

11 AM - 11:50 AM

Session 2.1
Pac-Man Treasure Hunt on the Terminal using Raspberry Pi
Ms. Lori Baker

Session 2.1
Generative AI: Opportunities and Threats in Cybersecurity
Ms. Joti Balani

11:50 AM - 1 PM

LUNCH BREAK

1 PM - 1:50 PM

Session 2.2
Pac-Man Treasure Hunt on the Terminal using Raspberry Pi
Ms. Lori Baker

Session 2.2
Generative AI: Opportunities and Threats in Cybersecurity
Ms. Joti Balani

1:50 PM - 2 PM

BREAK

2 PM - 2:50 PM

Session 3.1
From Animation to Deep Fakes
Ms. Jacqueline Gentile

Session 3.1
The Weakest Link - Social Engineering
Mr. David Sheeran

2:50 PM - 3:10 PM

SNACK BREAK

3:10 PM - 4 PM

Session 3.2
From Animation to Deep Fakes
Ms. Jacqueline Gentile

Session 3.2
The Weakest Link - Social Engineering
Mr. David Sheeran

CAMP SCHEDULE

DAY 5: FRIDAY, JUNE 16, 2023

Proudly sponsored by:



MIDDLE SCHOOL STUDENTS
112A Stright Hall (Unless Otherwise Noted)

HIGH SCHOOL STUDENTS
107 Stright Hall (Unless Otherwise Noted)

9 AM - 9:50 AM

Session 1.1
Exploring Programming with CS Academy
Ms. Lori Baker

Session 1.1
Dangers of Social Engineering and Phishing Attacks
Dr. Raj Ezekiel

9:50 AM - 10 AM

BREAK

10 AM - 10:50 AM

Session 1.2
Exploring Programming with CS Academy
Ms. Lori Baker

Session 1.2
Dangers of Social Engineering and Phishing Attacks
Dr. Raj Ezekiel

10:50 AM - 12:20 PM

LUNCH BREAK

12:20 PM - 2:30 PM

Session 2
End of Camp Competition
Ms. Lori Baker, Ms. Jacqueline Gentile, Mr. David Sheeran

2:30 PM - 2:50 PM

SNACK BREAK

2:50 PM - 4 PM

Session 3
Camp Conclusion, Post-camp Surveys, Certificate Awards
Dr. Waleed Farag