UMASS CYBERSEC CLUB

UMass Cybersec Club GBM

Fall 2025

UMASS CYBERSEC CLUB

UMASS CYBERSEC CLUB

General Body Meeting

Tuesday, September 9th @ 7-8 PM
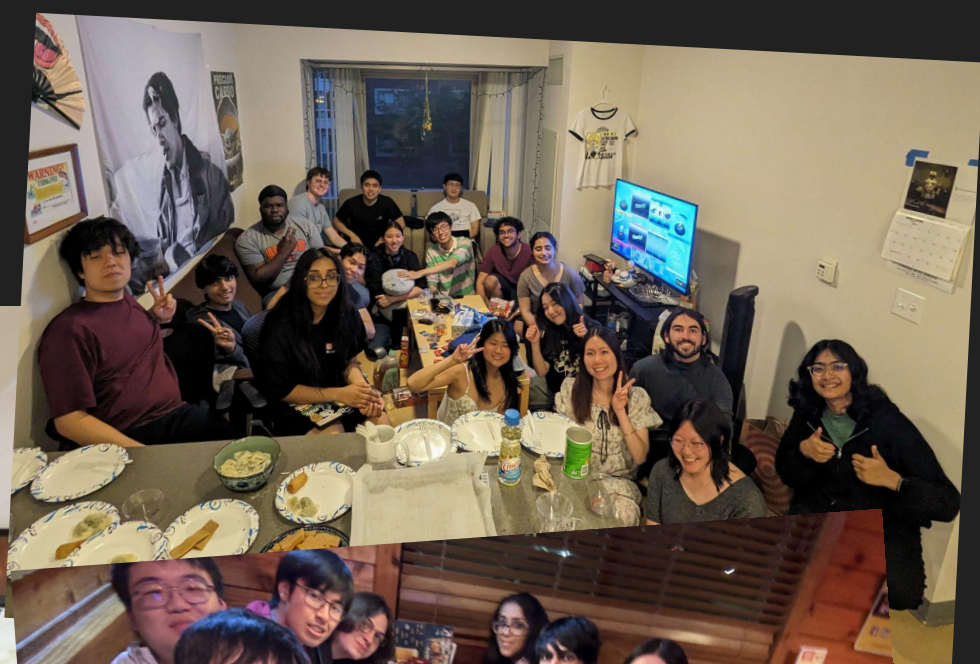
📍 LGRC A112 (CICS Event Space)

Who Are We?

A Group of Students who promote Cybersecurity education across UMass

We provide students with academic, industry, and personal experience!

Everything we teach is for ethical and academic purposes!

Meet our EBoard!
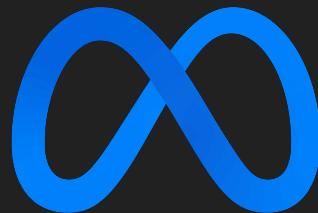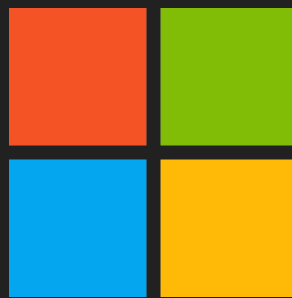
What is Cybersecurity?

"Measures taken to protect a computer or computer system (as on the Internet) against unauthorized access or attack"

- Merriam-Webster

- **Offensive Security** - Evaluating the security of applications, devices, networks, and more
- **Defensive Security** - Creating rules, building detections, securing devices, and investigating how and why network intrusions occur

UMASS
CYBERSEC
CLUB

Why Cybersecurity?

1. Cybersecurity is **fun and rewarding**
2. You end up learning. A Lot.
3. You get to do **impactful work** that helps keep the world secure
4. The pay is nice :) *$$$*

How do I learn Cybersecurity through the club?

UMASS
CYBERSEC
CLUB

Workshops!

- We have weekly workshops or talks every Tuesday @ 7pm in LGRC A112 & LGRC A104
  - At the start of the year, we'll have both intro and advanced workshops running concurrently - pick and choose what you're ready for!
- We present content then host hands-on labs for practice
- We'll also meet every Friday in the Makerspace to do more workshops, play Capture The Flag (CTF) competitions, work on projects, prep for competitions, and more!
  - Check out #workshop-slides for slides

UMASS CYBERSEC CLUB

Guest Talks

- We'll also have guest speakers from companies like **Fortinet, Meta, Dell,** and **Bugcrowd.**

- We're also planning to (hopefully) have a talk from **Low Level Learning!!** 🤯🔥🔥🔥 (date tbd)

UMASS 🔒
CYBERSEC
◼◼ CLUB

Workshop Schedule

- T 9/16: **Intro to Unix / Linux Rootkits**
- F 9/19: **Intro to Pentesting**
- T 9/23: **Intro to Forensics / Malware**
- F 9/26: **Intro to Networking** & **Firewalls**
- T 9/30: **Intro to Web Exploitation / Adv Web (TBD)**
- F 10/3: **All forms of Web RCE**
- T 10/7: **Intro to Hardware Hacking / Adv Hardware (TBD)**

Tuesdays: Generally 7-8 PM LGRC 112 and/or Makerspace
Fridays: 4-7 PM CICS Makerspace, talks 5-6 (Come and go!)

UMASS
CYBERSEC
CLUB

Workshop Schedule con't

- F 10/10: **TBD**
- T 10/14: **Intro to Assembly / Intro to Binary Exploitation**
- F 10/17: **Advanced Binary Exploitation**

Tuesdays: Generally 7-8 PM LGRC 112 and/or Makerspace
Fridays: 4-7 PM CICS Makerspace, talks 5-6 (Come and go!)

Capture The Flag (CTFs)

- Our team, SavedByTheShell, plays CTFs every weekend & some Fridays
- These are Cybersecurity competitions that teach skills in:

Web Exploitation   Reverse Engineering   Forensics

Binary Exploitation   Cryptography   Miscellaneous areas

- We'll announce when we play these in Discord — playing them alongside others is the best way to learn!

UMASS CYBERSEC CLUB

MinutemanCTF 2025

- **Beginner-oriented**
  - Good way to learn "missing skills"
- UMass/Five College Exclusive event
- Capture The Flag event with a **Hackathon twist**
  - In-person
  - Talks & Workshops
- October 17-19
- **Plenty of opportunities to win prizes** - not just top teams!

200 participants last year!

UMASS CYBERSEC CLUB

Training Platform

- We host workshop labs and other training content on our own training platform
  - These are mini, guided challenges to supplement the information from our workshops - like a permanent CTF
  - New challenges every week until MinutemanCTF!
- Potential prizes (TBD) for the students with the most points!
- Visit https://training.umasscybersec.org/ to sign up!
- **UMASS{F411_2025}**

UMASS CYBERSEC CLUB

The Cybersec Room - LGRT 212

- Awesome place to mess with cool hardware
  - Servers, lockpicks, arduinos, routers, printers, and more!
- Lab machines for hacking
  - Penetration testing
  - Game hacking
- Great studying spot
- Someone is always there to help you get started
- **Check #room-status to see if the room is open!**

UMASS
CYBERSEC
CLUB

Hacker Hours

- The room will be guaranteed to be open at a certain rotating time each week!
- A bunch of EBoard members will be in the room, so you can stop by and chat or learn!
- Times will be posted in the #room-status channel in Discord next week
- We'll announce when we're in the room outside of these posted times as well!

UMASS CYBERSEC CLUB

Collegiate Penetration Testing Competition (CPTC)

- Competition to simulate an offensive security evaluation of a corporation
- Professionals from top security companies provide meaningful real world experience
- Regionals run in Fall and Globals are in January
- Historically our team is world class, having placed 3rd in the world in 2023!
- Our team is preparing for regionals!
  - Applications open in Spring

UMASS
CYBERSEC
CLUB

Collegiate Cyber Defense Competition (CCDC)

- Defensive Competition held during Spring
- Involves defending a simulated corporate network against industry professional hackers
- Great place to meet employers
  - Jobs and free merch!
- Applications open sometime next week!

UMASS
CYBERSEC
CLUB

RedCoat-Bluecoat

- New Competition starting this year!
- Finish and secure an incomplete corporate network - then square off against other teams!
- Modeled off of our collegiate competitions & mimicking real life networks and applications.
- Teams of 5
- Prizes included!
  - Interest Form released now, more details to come!

UMASS CYBERSEC PRESENTS

RED TEAM   BLUE TEAM

SIMULATION

UMASS
CYBERSEC
CLUB

How do I get involved / learn?

- ## Show up!
  - Hang out in the room
  - Apply/compete in competitions
  - Listen in on EBoard Meetings, 7-8 PM Mondays in the Cybersec Room
  - Do projects with us or ask if we want help
    - Infrastructure, Talks, Bughunts, etc!

- **EBoard Applications open late Fall**
  - But, you can get involved with or without being EBoard!

We're all students - just ask!

I'm doing my part!

UMASS
CYBERSEC
CLUB

Women in Cybersecurity (WiCyS)

- National Organization that aims to uplift and encourage minorities in cybersecurity especially women
- Scholarships for members/special conferences from parent organization
- Opportunities for free certification/challenges - keep posted!

Disclaimer

- Hacking is **illegal** without proper consent and authorization.

- Do not use anything learned here to do something illegal!

- This is only for educational purposes to show you what hacking is truly capable of and what you'll be up against in the field.

Google Chrome

- I will be exploiting a vulnerability in Google Chrome.

- Google Chrome is used by basically everyone.

- This exploit has been patched. However, unpatched exploits or **0 days** sell for $100,000 +

Google's Chrome Has Taken Over the World

Browser market share in August 2023, by region (in percent)

● Chrome ● Safari ● Edge ● Firefox ● Other

North America 53.1
Europe 58.6
Asia 72.2
South America 78.9
Africa 71.5
Oceania 52.2
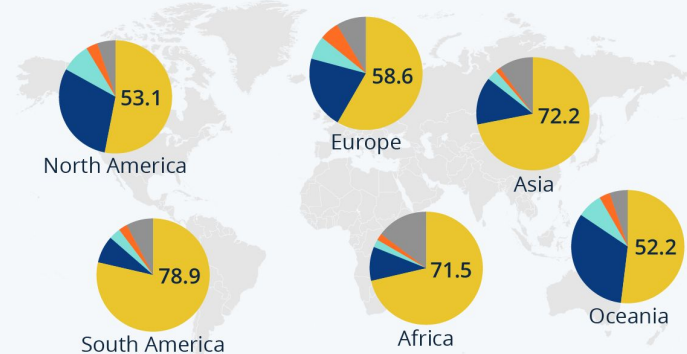
* All platforms, including desktop, tablet, mobile.
Source: StatCounter

statista

UMASS CYBERSEC CLUB

The Vulnerability

- The vulnerability allows me to corrupt memory in Chrome.

- Once I can corrupt memory, I can read and write at any part of the memory. This allows me to insert my own custom code into memory and execute it.

- The Final Result? A person clicks a link and they **get hacked!!!**

UMASS
CYBERSEC
CLUB

Enough Talk, It's Demo Time!

UMASS
CYBERSEC
CLUB

Thanks for joining us! Check us out on our links below.

UMASS{F411_2025}   https://training.umasscybersec.org/

Newsletter

Discord

Twitter

Website

UMASS
CYBERSEC
CLUB

Questions?

How do I learn more?
How can I get involved?
When are you guys available?

Come Up & Ask!

Resources Posted in Discord

Newsletter	Discord	Twitter	Website