A nighttime photograph of a city skyline, likely Seattle, featuring several prominent skyscrapers with illuminated windows and balconies. The sky is a deep blue, and the city lights create a warm, golden glow. The buildings are densely packed, and the overall scene conveys a sense of urban energy and modern architecture.

Increase Enrollment by Raising Standards

Dr. Susan Frank
Suffolk County Community College

Program Success!

Good Retention and
Demand for Program

- Our program has had a great track record.
- We graduate nearly half of the students that enter our program.
- We usually have a list of students waiting to get into the program.
- We are expanding the program to our other campuses.
- And... We are a CAE-CD Center!



Jobs and Transfers!

- Cybersecurity Operations, Brookhaven National Labs*
- Department of Defense (Masters from NYIT)
- Cybersecurity Consultant, Deloitte (Directly to workforce)
- Network Engineer, PCA Group
- System Engineer, Solaris Technologies
- Level 2 Engineer, Managed Technology
- Transferred to Fordham University with \$20k scholarship
- IT Support Specialist, Riverhead Building Supply**

*Would not consider students from a 2-year school until they saw our students work as a team. Now they hire several interns per year.

**Recently requested additional student.





CAE
IN CYBERSECURITY
COMMUNITY

Student Success

Top half of CyberForce Competition with all teams except 2 coming from 4-year schools or graduate students.

71 of 316 teams in the top bracket of the NCL competition.



Suffolk County Community College
Cybersecurity Club Advisor Jonathan Sadowski,
Melissa Fisk (Deer Park), Nolan Smith (E. Pat-
chogue), Anthony Lippman (Miller Place), Chris
Renzine (Medford), Jonathan Delia (Lindenhurst)



Recommendations

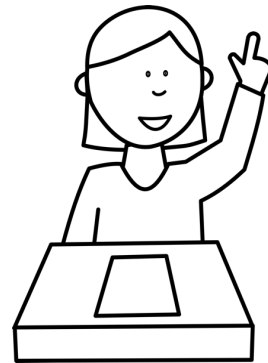
In this presentation I will share several strategies that have helped our students succeed.

- Establish expectations early.
- Teach students why and how to learn.
- Encourage the class to become a team.
- Foster trust and respect between students and faculty.
- Create challenging labs and assignments.

Establish expectations early in the semester....

Students that plan to pass without learning will leave once they realize they can't fake their way through.

- Students are much more willing to help each other students that are putting in a real effort.
- Instructor time is not wasted on interruptions with no bearing on the current topic from unprepared students that have.
- Questions from remaining students tend to be relevant.
- Be willing to interact with students and answer questions.



Build self-
esteem by
raising
standards!

- Too many students learn that they can pass without effort.
- This has NOT left them with high self-esteem!

PASSED

What do you
mean I failed?
I was doing so well!

- Assignments that only require looking up the answers online result in the illusion of doing well.
- Students are in for a rude awakening if the final grade requires them to know the topic... or if the next course does.
- By giving instructor-created exams throughout the semester we have increased our final outcomes tremendously.



Domino Effect

Those who are willing to put in the

- If student has failed to learn they should fail.
- Passing them will waste lab and teaching resources in this and future classes.
- Those who are not ready should wait until a future semester.
- We've had many students succeed on subsequent tries.



Students really do have dogs that eat their homework.

College students must overcome many challenges.

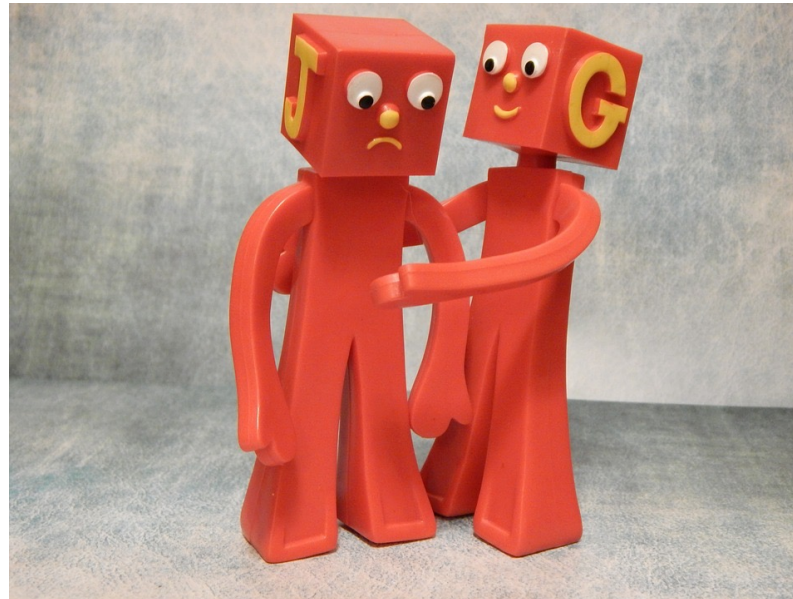
- Work
- Family
- Mental health
- Health
- Transportation
- Friends



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Mutual Trust and Respect

- It is easier to allow exceptions for extenuating circumstances once you have established a trust relationship with your students.



Why should I learn this when I can find all the answers on the Internet?

Those who are willing to put in the

- The Internet provides many answers.
- It also provides many wrong answers.
- Critical thinking skills are lost.
- We need to show students the value in being able to think.



Instructor Preparation

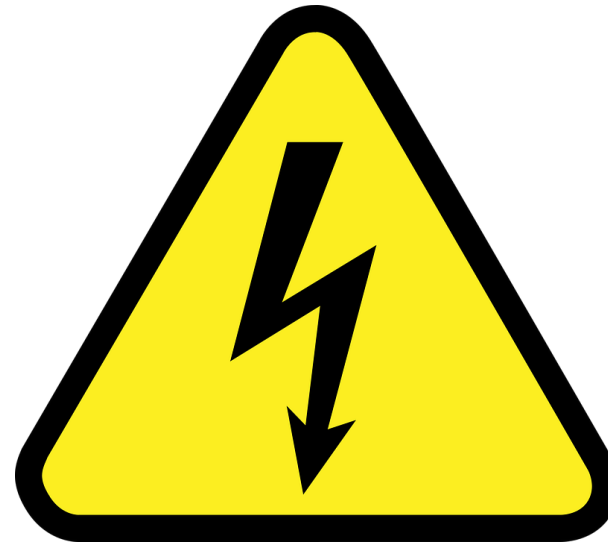
Stay up-to-date on
course topics.

- Interact with students and assist with labs.
- Lab demonstrations encourage students to succeed in unfamiliar environments.
- Success fosters the desire to learn.
- Create interactive skills exams based on the labs.



Students are
shocked to
learn ...

- They must prepare for labs.
- They must submit assignments on time.
- That their grade reflects what they have learned.
- Open book exams are tougher than those that can be copied from the Internet.



... and surprised
to learn that
they like learning



Build comradery by overcoming obstacles together.

Cybersecurity is a team sport.

- Propose a problem and have the class solve it as a team.
- As students struggle to understand complex concepts they want to teach and learn from each other.
- Students are proud of their achievements.
- Prepares them to compete together in competitions and jobs.
- Improves retention
- Builds friendship



My classes are noisy!

Labs that go without a hitch aren't always the best labs.

- Students are excited to be there.
- Open-ended labs foster discussions when things don't work as expected.
- Need to create boundaries during a lecture.



I got a job!

Students graduating
from a rigorous
program ...

- Are much more likely to have a true understanding of the material.
- Have higher confidence.
- Have success at competitions.
- Are more likely to get cybersecurity jobs.
- improve program reputation as they and succeed in those jobs.



Questions?

- What are your strategies for student success and how are they working?