

# INCUBATE

(INjecting and assessing Cybersecurity edUcation  
with little internal suBject mATter Expertise)

LE MOYNE  
SPIRIT. INQUIRY. LEADERSHIP. JESUIT.

## Challenge:

As a CS program that lacks cybersecurity expertise and has limited faculty resources:

- How can we cover breadth of CS while integrating cybersecurity into our program?
- How can we assess whether students are gaining appropriate cybersecurity knowledge?

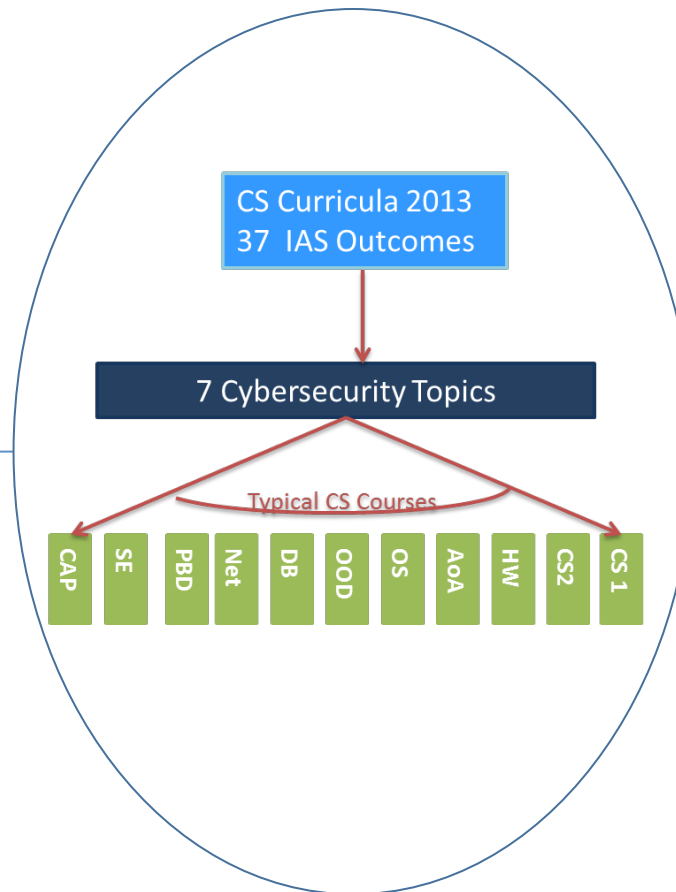
Challenges facing Le Moyne College are complex and perhaps unique to CS programs with a very small number of faculty.

## Solution:

- Inject cybersecurity topics and SLA within existing courses rather than create new courses.

## Key contributions:

- Identify cybersecurity topics; map to CS2013 IAS learning outcomes.
- Map topics to typical CS courses.
- Injection modules for each topic.
- Assessment strategies for each topic.



## Scientific Impact:

- Better educated workforce, with particular focus on secure software development.
- Cybersecurity topics and assessment strategies integrated into typical CS courses, leading to verifiable educational results.

## Broader Impact:

- Integrating these topics across CS curriculum encourages students to think of cybersecurity as an essential part of their skillset. This should result in fewer vulnerabilities existing in software.
- Verifiable educational outcomes.

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