

Motivating and Reaching University Students and Professionals with Software Security Education

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<https://softwaresecurity.digitalchalk.com/dc/learn/ncsu-software-security>

How do we train more security professionals?

The objective of the project is to provide software security education on a widespread basis and to compare platforms for providing knowledge on software security to university students and professionals.

Hacking the Skills Shortage

- According to a survey of security professionals...
 - 82% report shortage of cybersecurity skills
 - 71% says this causes direct and measurable damage

(<http://www.mcafee.com/us/resources/reports/rp-hacking-skills-shortage.pdf>)



Goals

What we do for the university course:

- Flip a graduate level course at NCSU
- Students watch video lectures before class takes places and take a quiz
- Class time devoted to exercises, discussions, etc.

For the online course, this means...

- Have a strong base of knowledge
- Can reuse the flipped materials for the online course
- Exercises can also be done collaboratively via videos/forums

First Trial in 2014

- Ran university course and online course in parallel
- 90 graduate students at NCSU
- 400 signups for online course, 60 completed

Asynchronous Offering

- Partnered with DigitalChalk (see link above)
- Offering available 24/7
- Two pricing tiers: 15 dollars for the course, 50 for certificate

Lessons Learned

- Keep interaction high with students
- Weekly "security breach" videos were a hit
- You will underestimate how much time it takes

Future Work

- Rerunning online course in Spring 2017
- Iterate and improve!
- What lessons can be applied to other fields

Interested in meeting the PIs? Attach post-it note below!

