

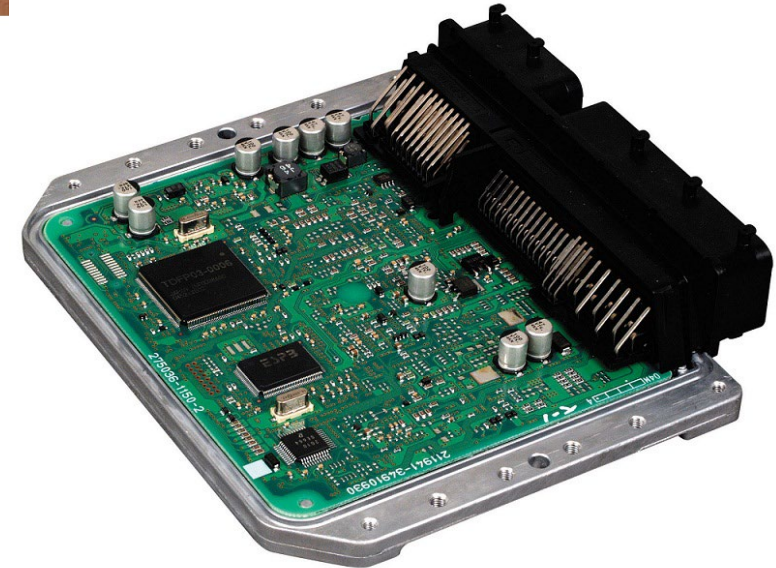
# 0x100 – Introduction to the Introduction

**ECED4406 – Computer Security**

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Dalhousie University.**

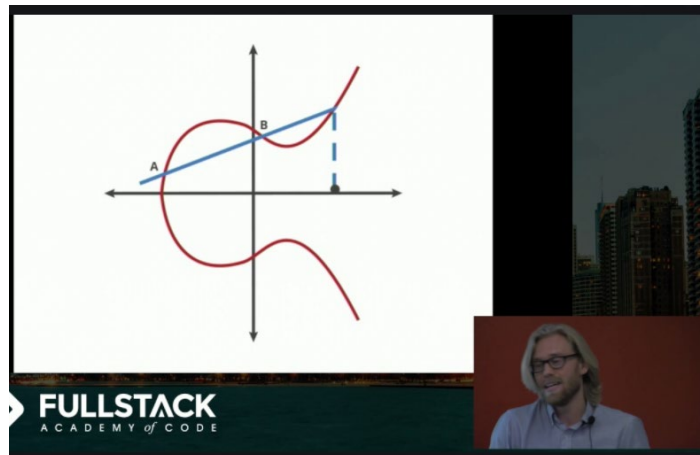
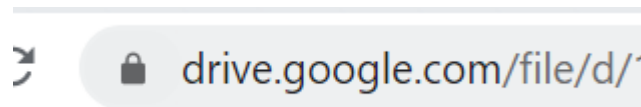
# What is this course about?

- Embedded system security, such as:
  - IOT Devices
  - Automotive Systems
- How to secure embedded systems.
  - What is cryptography?
  - What is a root of trust, secure boot, etc?
  - What are security ratings?
- How to break embedded systems.
  - Reverse engineering.
  - Fuzzing.
  - Hardware Attacks - Non-invasive.
  - Hardware Attacks - Invasive



# What is this course not about?

- Web security & web security protocols.
  - HTTPS, SSL, etc.
- Detail cryptographic algorithm development.
- High-level application security (Windows, Linux, etc).



# What should you already know?

- The following words should mean something to you:
  - RAM.
  - ROM.
  - Stack frame.
  - Instruction registers.
  - Matrix multiplication.

# Online to In Person

- I previously taught this course online, this version is different (in-person).
- Previous lectures are available (from 2020 year) at [https://www.youtube.com/playlist?list=PLyAXNQGte3qNNbs8J3gE8JkpAJ9\\_OH75q](https://www.youtube.com/playlist?list=PLyAXNQGte3qNNbs8J3gE8JkpAJ9_OH75q) .
- Some things (especially assignments/labs) changed from previous years.
- Where lectures differ, I'll record versions and try to post them.
- For online: “Lectures” were short – one class contains multiple lectures!

# Course Lecture Style

- Class schedule is roughly as follows each day:
- Wednesday @ 4:05PM – 5:25PM
- Friday @ 4:05PM – 5:25PM
  
- + Labs on Friday 8:35-11:25AM (not every week)

Classes will *roughly* follow the schedule each day:

4:05-4:15: Recap of previous lecture (possibly longer if needed).

4:15-5:00: New material / lectures (45 mins)

5:00-5:25: Questions & discussions

# Brightspace



ECED4406 - Computer Security (Sec 01...



Colin O'Flynn



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## ECED4406 - Computer Security (Sec 01) - 2023/2024 Fall

Announcements [▼](#)

### Welcome to ECED4406! [▼](#) [×](#)

Posted Sep 3, 2023 10:56 PM

Welcome to ECED4406! We'll be using Brightspace in this class extensively. Please see the course syllabus in "Content->Overview".

**NOTE: NO CLASS SEPT 11th OR SEPT 14th DUE TO TRAVEL.**

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Updates [▼](#)

There are no current updates for ECED4406 - Computer Security (Sec 01) - 2023/2024 Fall

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# Quizzes

- We will start quizzes in 2 weeks – these cover some of the lecture topics.
  - They should hopefully reinforce what you've learned in the lectures.
  - They will run through the Brightspace system.



# Assignments

- Assignments will be throughout the semester
  - One every ~2-3 weeks in final version to avoid overloading you.

# Labs

- Labs were previously run on everyone's computers.
- Labs will be in the normal “lab room” and involve more hands-on material/tools.

# Course Project

- Course project will be a chance to apply some of what you've learned in this course.
- More details coming next month once you have more background on the material.

# Final

- Final includes two aspects: a lab test (practical) and a classic written test (during exam time).