# LABORATORIES AND COMPUTERS

**CIVIL AND ENVIRONMENTAL ENGINEERING** 

# LAB STRUCTURE AND SAFETY



- ME 2431 Environmental Research
- ME 2432 Environmental Research
- ME 2447 Environmental Research
- ME 3441 Analytical Research
- ME 3499 Analytical Research
- MC 1040 Undergraduate Environmental
- MC 1060 Mixed-use space
- MC 1060A Undergraduate Soil Mechanics
- MC 1060B Geoenvironmental Research
- MC 1084 Undergraduate Mechanics
- MC 2060 John Adjeleian
- MC 2040 Fire Engineering
- MC 2052 Boundary Layer Soil Mechanics

- MC 2044 Asphalt Mix
- MC 2045 Materials
- MC 2046 Dust Extraction Room
- MC 2051 Advanced Geotechnical
- MC 2070 Large Scale Pit Test
- CB 5301 ACSE Laboratory
- CB 7206 Delta Control Laboratory
- CB 7110 Environmental Research
- CB 6109 Field Lab
- Canal Roof level 4
- Canal Roof level 5

## CURRENT LABORATORIES

#### 2032 MINTO CASE

- Jason Arnott
- Evan Heyes
- Muhammad Salam

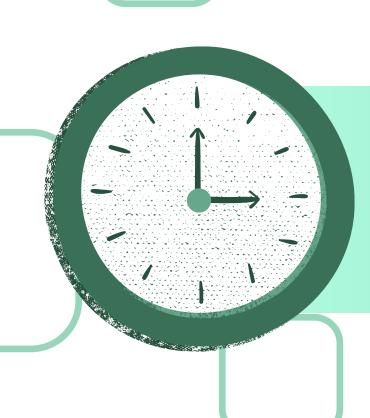
#### 2038 MINTO CASE

Chris Kirupairajah

## TECHNICAL STAFF OFFICES

#### 2432 MACKENZIE

Sonja Koster



#### WORKING HOURS

8:30 am - 4:30 pm

#### GRADUATE RESEARCH STUDENTS:



- Must have completed all required safety training.
- Must have a completed Project Information Form.
- Access outside of regular hours:
  Must submit a Working Alone Safety
  Plan and follow the Working Alone
  Guidelines while working alone.

## ACCESS AND WORKING HOURS



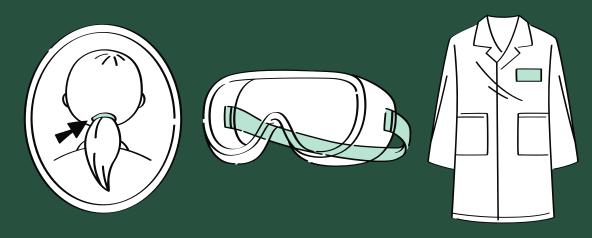
#### QUALIFICATIONS

- To qualify to use the laboratories for research, all potential users MUST complete the following training as a minimum:
  - EHS: Workplace Hazardous
     Materials Information System
     (Brightspace)
  - EHS: Worker Health and Safety
     Awareness (Brightspace)
  - Environmental Health and Safety's Laboratory Safety Training Course (Please sign up via the EHS website carleton.ca/ehs/)



## PERSONAL PROTECTIVE EQUIPMENT

- All users should dress appropriately.
- All users are expected to use the appropriate PPE at all times.
- Basic equipment is supplied.
- Specific requirements are to be addressed by the Supervisor.





#### CLEANLINESS

- All users are expected to maintain their working environment in a clean and safe condition.
- Safety and cleanliness are everyone's responsibility.
- Check with the Instructor/Lab
   Supervisor as to the appropriate
   waste disposal procedure.
- Always ask the Instructor or Lab Supervisor if you have any questions.

### PROJECT INFORMATION FORM

- The Form should be initially created through a collaboration between you and the Academic Supervisor; however, we encourage you to consult with lab staff at any point during the process.
- The Form should include a high-level project description and information on test setup and test plan, as well as safety training completion status, the chemicals/materials required, safety precautions, and the lab space, equipment, and staff time needed.
- A complete electronic version of the Form must be submitted to the Lab Supervisor.
- Based on recommendations from lab staff and with approval from the Academic Supervisor and Lab Supervisor, the Form can be revised later if necessary.



## COMPUTERS

## ACCOUNTS

- Your MC1 accounts are made automatically when you are registered at the beginning of a term.
- Accounts are created using the same account name provided by Carleton, generally it is in the format: firstnamelastname
- Use these accounts for the computer labs unless otherwise stated.

For any account issues, please contact the ITS Help Desk

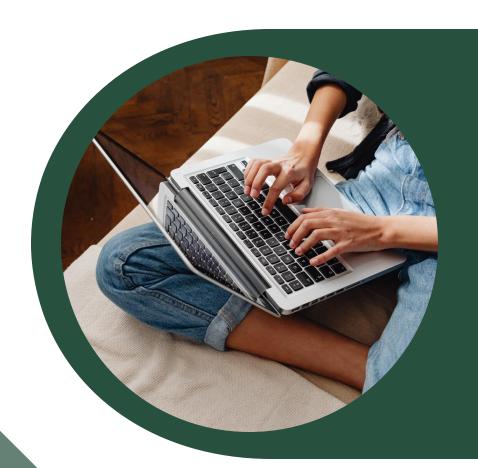


#### GENERAL CAMPUS WIRELESS ACCESS

- Use Carleton One credentials
- Info at carleton.ca/its



### NETWORKS



#### DEPARTMENTAL WIRED ACCESS

- General internet access
- Can reach internal resources directly (some internal software licenses are domain dependant)

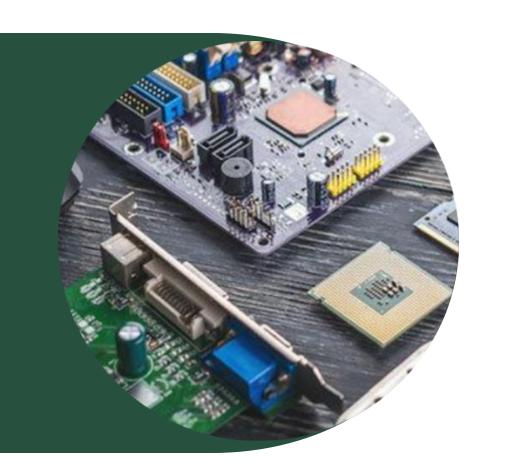


- The department runs virtual workstations that has our departmental specialized software installed on them.
- You can access the virtual workstation platforms from any browser on any computer, anywhere or by installing the VMware Horizon software from cudesktop.carleton.ca
- From outside the campus you will have to run the VPN software on your computer before you can gain access. These resources are often accessible from outside our wired network using the VPN available through ITS. See: carleton.ca/ITS.

#### **Hardware Problems**

#### Example:

- Laptop not turning ON
- Keyboard / mouse not working
- Any equipment related to course







#### **Software Problems**

#### Example:

- Any Software related to course
- Windows problem

## OFFICE OF THE DEAN OF ENGINEERING COMPUTER LAB

#### 6065 MINTO CASE

- Sign in with Carleton One credentials
- Access to general purpose and some course specific software on local workstation
- Access to the campus wide printing facilities
- Access to Virtual Platform with full
   Departmental specialized software









## OFFICE OF THE DEAN OF ENGINEERING COMPUTER LAB

- Tutorial and labs will use MC6065, Room usage has a schedule that must be adhered to. This room is heavily booked for undergraduate tutorials during the day (Monday Friday 8:30 -5:30).
- Always save work in P: drive. Or you will loose your work.

Various Microsoft Software is available to all students at <a href="https://cu.onthehub.com">https://cu.onthehub.com</a>

For **MS Office365 Access** for students please see this link for detail on how to Sign Up and Download:

https://carleton.ca/its/help-centre/get-microsoft-office-for-students/

### FACULTY RESOURCES



- Several faculty run their own dedicated internal servers and workstations
- These resources are directly accessible from inside our wired network
- These resources are often accessible from outside our wired network using the VPN available through ITS. See carleton.ca/ITS.

### ISP RESPONSIBILITY

- Carleton University and the Department are considered to be "Internet Service Providers"
- We have a responsibility to track and identify users who violate copyright restrictions
- We can trace a user through our network, and can identify end users accused of illegally downloading movies, music or other digital files.
- We are required to report the user to ITS for further action if requested.





## CONTACT TECH SUPPORT



613-520-2600 ext. 7478



CEETechSupport@carleton.ca

## LABORATORY SUPPORT

### ENGINEERING IS A TEAM SPORT

We have combined decades of experience in testing, manufacturing, and designing.

If you can come up with a test, we've probably seen something similar. Ask us what was learned the last time.

Co-ordination between the student/professor/lab staff is critical to ensuring a smooth experience.

u aren't expected to be an expert in everything!



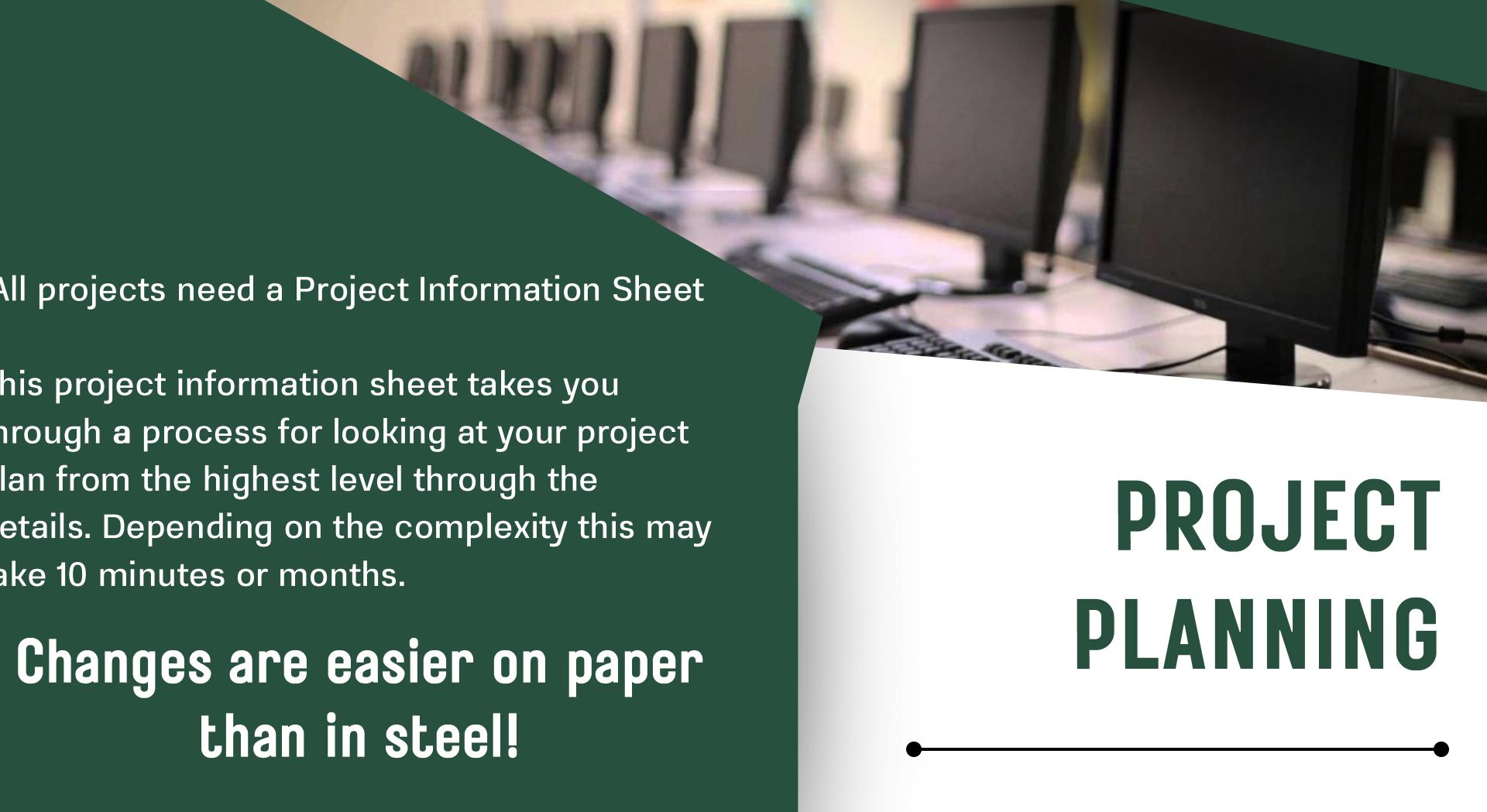
### RESOURCES

Below is a subset of the things the lab can do to help you, regardless of the lab you work in.

- Machinery operation/modification
- Control systems design, development, modification
- Data acquisition / Signal Processing
- Part sourcing/ordering

you can dream it, we can do it (probably)!





#### LIFECYCLE OF A PROJECT AND THE LAB

Below is a breakdown of the three main phases of a project with important things to consider. The lab staff will be happy to help flesh out details as part of your planning

#### CONCEPT

- What are you testing?
- What question are you trying to answer?
- How is it going to be measured?
- Do we have all the equipment to hand?
- What are the dangers associated with the testing?

#### **IMPLEMENTATION**

- When are things going to arrive?
- Is there sufficient space available?
- How do I validate the output of my test?
- Verification of the requisite safety training?

#### CONCLUSION

- How are we going to get rid of the samples?
- Is a follow up test planned?
- Do I have to communicate with a follow up student?
- Are there any complexities which should be dealt with prior to the next student?

