

**Civil and Environmental Engineering**  
ENVE4107A/BLDG 5302 Building Services Engineering- 0.5 credit

**Course Outline**  
Fall Session

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Fri 2:30-5:30pm SA624

## Course Description:

This course provides details on how buildings are designed and operated. The materials provide foundational knowledge to understand building services: mechanical, electrical, plumbing systems with associated controls.

## Course Texts:

Mechanical and Electrical Systems in Architecture, Engineering, and Construction, by Wujek, 5th edition

## Assessment

Lab (weekly):	25%
Topic Proposal (indiv):	10%
Group Presentation:	15%
Final Project Poster (indiv):	20%
Proctored Final Exam (indiv):	30%

## Office Hours: Fri, 1 hour before class at CB 5209/Virtual

Or by appointment. Please allow two business days for any email responses. Use "ENVE4107:" in email title and state your question clearly. **Make sure your question isn't already answered in the course outline/schedule!**

## ACADEMIC ACCOMMODATIONS

Carleton is committed to providing academic accessibility for all individuals. Please review the [processes for academic accommodation requests](#) and ensure the link to this information is included in all course outlines/syllabi for courses you are teaching this academic year.

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

**Pregnancy obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details see link below

**Religious obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details see link below

**Academic Accommodations for Students with Disabilities:** The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the [PMC website](#) for the deadline to request accommodations for the formally-scheduled exam (if applicable).

**University Obligations when requesting accommodations (link):**

<https://devsite.carleton.ca/equity/accommodation/academic/course-outline-wording/>

### **Survivors of Sexual Violence**

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, <https://carleton.ca/sexual-violence-support/>

### **Accommodation for Student Activities**

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

For more information on academic accommodation, please contact the departmental administrator or visit: [students.carleton.ca/course-outline](https://students.carleton.ca/course-outline)

### **Student Wellness Resources**

#### **General (All Resources Available):**

<https://students.carleton.ca/wellness/>

#### **Mental Health and Wellbeing**

<https://students.carleton.ca/services/mental-health-well-being-website/>

#### **International SOS**

<https://students.carleton.ca/services/international-sos/>

#### **Therapy Assisted Online (TAO)**

<https://students.carleton.ca/services/therapy-assisted-online/>

### **ACCESSIBILITY**

Students with disabilities requiring academic accommodation in this course must register with the Paul Menton Centre for Students with Disabilities (PMC) for a formal evaluation of disability-related needs. Documented disabilities could include but are not limited to mobility/physical impairments, specific Learning Disabilities (LD), psychiatric/psychological disabilities, sensory disabilities, Attention Deficit Hyperactivity Disorder (ADHD), and chronic medical conditions. Registered PMC students are required to contact the PMC, 613-520-6608 every term to ensure that instructor receives your Letter of Accommodation no later than two weeks before the first assignment is due or the first in-class test/midterm requiring accommodations. If you only require accommodations for your formally scheduled exam(s) in this course, please submit your request for accommodations to PMC by the deadlines published on the PMC website:

<https://carleton.ca/pmc/>

<https://carleton.ca/registrar/registration/dates-and-deadlines/>

### **STUDENT CONDUCT**

Please refer to <https://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/> for specific information regarding Student Conduct and Academic Integrity standards.

### **STUDENT RESPONSIBILITY**

<https://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/student-responsibility/>

### **CONDUCT DISCRIMINATION AND HARRASSMENT**

<https://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/academic-integrity-and-offenses-of-conduct/>

### **ACADEMIC INTEGRITY**

The University has adopted a policy to deal with allegations of academic misconduct. This policy is expressed in the document *Carleton University Academic Integrity Policy*, found here:

<https://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/academic-integrity-and-offenses-of-conduct/>

### **SPECIAL INFORMATION FOR PANDEMIC MEASURES**

Carleton will continue to follow all public health guidelines as the COVID-19 pandemic continues. Instructors may find it helpful to review the [guidelines for in-class teaching](#) and [labs](#). Both guideline documents are available on the [COVID-19 website](#). Please note that updated versions of both documents will be distributed and posted online soon.

It is important to remember that COVID is still present in Ottawa. The situation can change at any time and the risks of new variants and outbreaks are very real. There are [a number of actions you can take](#) to lower your risk and the risk you pose to those around you including being vaccinated, wearing a mask, staying home when you're sick, washing your hands and maintaining proper respiratory and cough etiquette.

**Feeling sick?** Remaining vigilant and not attending work or school when sick or with symptoms is critically important. If you feel ill or exhibit COVID-19 symptoms do not come to class or campus. If you feel ill or exhibit symptoms while on campus or in class, please leave campus immediately. In all situations, you must follow Carleton's [symptom reporting protocols](#).

**Masks:** Carleton has paused the [COVID-19 Mask Policy](#), but continues to strongly recommend masking when indoors, particularly if physical distancing cannot be maintained. It may become necessary to quickly reinstate the mask requirement if pandemic circumstances were to change.

**Vaccines:** Further, while proof of vaccination is no longer required as of May 1 to attend campus or in-person activity, it may become necessary for the University to bring back proof of vaccination requirements on short notice if the situation and public health advice changes. Students are strongly encouraged to get a full course of vaccination, including booster doses as soon as they are eligible, and submit their booster dose information in [cuScreen](#) as soon as possible. Please note that Carleton cannot guarantee that it will be able to offer virtual or hybrid learning options for those who are unable to attend the campus.

All members of the Carleton community are required to follow requirements and guidelines regarding health and safety which may change from time to time. For the most recent information about Carleton's COVID-19 response and health and safety requirements please see the [University's COVID-19 website](#) and review the [Frequently Asked Questions \(FAQs\)](#). Should you have additional questions after reviewing, please contact [covidinfo@carleton.ca](mailto:covidinfo@carleton.ca).

### **EXAM ACCOMMODATIONS FOR PMC STUDENTS VIA VENTUS**

Carleton University has launched a new academic accommodation management system, [Ventus](#). With Ventus, course instructors can view up-to-date information on their student's academic accommodation requirements, and submit and manage exam booking requests with the McIntyre Exam Centre. Ventus provides students with more control over their accommodations on a per-course and per-test basis, and creates an improved user experience for students and faculty with real-time data in one shared web location. Students can request and manage their academic accommodations via the [Ventus Student Portal](#). More information on using Ventus, with overviews of the student and faculty portals, can be found on [VentusHelp](#).