



<b>Course Number</b>	ARCH 608	<b>Classroom</b>	Zoom
<b>Course Name</b>	<b>Architectural lighting design</b>		
<b>Pre/Co-Requisites</b>			
<b>Instructor</b>	<b>Dr. C. Hachem-Vermette</b>	<b>Office Hours/Location</b>	“by appointment”
	<b>Email:</b> <a href="mailto:carolinehachem@ucalgary.ca">carolinehachem@ucalgary.ca</a> ,		<b>Phone:</b>
<b>Class Dates</b>	Mandatory real-time Zoom classes		
<b>Instructor Email Policy</b>	Please note that all course communications must occur through your @ucalgary email, and I will respond to emails sent via student’s @ucalgary emails within 72 hours, during weekdays		
<b>Name and Email of Teaching Assistant(s)</b>			

### Course Description

Lighting design can significantly affect the architectural perception of a space. Understanding the principles of architectural lighting is a basic step towards achieving comfortable, healthy, and environmentally responsible designs. In this course, lighting design will be addressed as part of the broader process of designing the visual experience in architecture. Both daylighting and electric lighting will be covered.

**Course Hours:** Block week (9-12:30)

### Online Delivery (If applicable)

This course will take place **online** via Desire2Learn (D2L) and Zoom. Students are required to participate in the synchronous Zoom sessions. If unable to participate live due to unforeseen circumstances, inform the instructor in advance to work out an alternative participation activity .

### Course Learning Outcomes

By the end of this course, students will be able to:

1. To apply simple principles of lighting design process including the use of the 5 layers

approach.

2. To develop illumination schemes that enhance an architectural design.
3. To demonstrate knowledge of electric illumination systems and design techniques.
4. To demonstrate knowledge of daylighting and its design principles.
5. To analyze designs quantitatively.
6. To demonstrate awareness of sustainable lighting design.

## Learning Resources

### Readings

Recommended readings include:

The Architecture Of Light (2nd Edition): A textbook of procedures and practices for the Architect, Interior Designer and Lighting Designer.

In addition, list of readings related to selected topics will be posted regularly on D2L.

**Technology requirements (D2L etc.):** In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Broadband internet connection
- [Student IT Resources](#)

Most current laptops will have a built-in webcam, speaker and microphone.

## Additional Classroom Conduct and Related Information

### Guidelines for Zoom Sessions in Online Classes

Students are expected to participate actively in all Zoom sessions and to turn on their webcam. Please join our class in a quiet space that will allow you to be fully present and engaged in the Zoom sessions. Students must behave in a professional manner during the session. Students, employees, and academic staff are also expected to demonstrate behaviour in class that promotes and maintains a positive and productive learning environment.

### Assessment Components

Assessment Method	Description	Weight	Aligned Course Learning Outcome
Project Part A	This part of the project deals with the conceptual design of	25%	1-3

	architectural lighting, and will rely on knowledge gained in Day 1&2		
Project part B -	This part deals with the analytical aspect of a lighting project, including calculation, developing of final lighting maps, selecting lighting equipment, etc. It covers all material learned in the course (Outcomes 1-6).	45%	1-6
Quizzes		20%	

## Assessment and Evaluation Information

Attendance and Participation Expectations: 10%

Guidelines for Submitting Assignments: Please submit on D2L- Folders will be created for this purpose

Final Examinations: N/A

Expectations for Writing (<https://www.ucalgary.ca/pubs/calendar/current/e-2.html>):

Late Assignments: -2% for each additional 24hours

Criteria that must be met to pass: Passing grade on the whole course (cumulative of all assignments)

## Grading Scale

Grade	Grade Point Value	4-Point Range	Percent	Description
A+	4.00	4.00	95-100	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	90-94.99	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	85-89.99	Very good performance
B+	3.30	3.15-3.49	80-84.99	Good performance
B	3.00	2.85-3.14	75-79.99	Satisfactory performance

B-	2.70	2.50-2.84	70-74.99	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	65-69.99	All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements.
C	2.00	1.85-2.14	60-64.99	
C-	1.70	1.50-1.84	55-59.99	
D+	1.30	1.15-1.49	50-54.99	
D	1.00	0.50-1.14	45-49.99	
F	0.00	0-0.49	0-44.99	

A student who receives a "C+" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript.

## CACB Student Performance Criteria

The following CACB Student Performance Criteria will be covered in this course at a primary level (other criteria will be covered at a secondary level): A1. Critical Thinking Skills; A6. Human Behaviour, B3. Site Design, and B4. Sustainable Design. (see CACB SPC matrix for further details)

### Detailed Class Schedule (tentative)

Day1 9:00 am- 12:30pm	Jan 3 <sup>rd</sup>	Introduction to Lighting Design; Lighting perception <b>Introducing Project;</b>  Physical characteristics of light; Lighting metrics.
Day2 9:00 am- 12:30pm	Jan 4 <sup>th</sup>	Quiz1 (10 mins)  5 layers approach (ctd); Task Illuminance; Lamps and lighting Equipment (Alison)  lighting calculations; [1hour]  Exercise of lighting calculations (cavity method, point by point method)
Day3 9:00 am- 12:30pm	Jan 5 <sup>th</sup>	Quiz 2 (10 mins)  Lighting map process, Lighting specs and cutsheets, Lighting control and sustainability (Alison)  Project tutorial: calculation + lighting maps-  Introduction to Daylighting (Definition and benefits)

Day 4 9:00 am- 12:30pm	Jan 6 <sup>th</sup>	Quiz 3  Daylighting (Daylighting surfaces, Daylighting design); Shading devices  Project tutorial (last 1.5 hours)
Day 5 9:00 am- 12:30pm	Jan 7 <sup>th</sup>	Quiz 4  Project tutorial and assistance, methods of calculation
	Jan 21 <sup>st</sup>	Submission of Project

\*\*Students can continue after official class time

## Guidelines for Zoom Sessions

*If video conferencing tools such as Zoom or MS Teams will be used during course activities, provide information related to student learning and conduct, and indicate whether these sessions will be recorded.*

For example:

Zoom is a video conferencing program that will allow us to meet at specific times for a “live” video conference, so that we can have the opportunity to meet each other virtually and discuss relevant course topics as a learning community.

To help ensure Zoom sessions are private, do not share the Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor’s permission.

The use of video conferencing programs relies on participants to act ethically, honestly and with integrity; and in accordance with the principles of fairness, good faith, and respect (as per the [Code of Conduct](#)). When entering Zoom or other video conferencing sessions (such as MS Teams), you play a role in helping create an effective, safe and respectful learning environment. Please be mindful of how your behaviour in these sessions may affect others. Participants are required to use names officially associated with their UCID (legal or preferred names listed in the Student Centre) when engaging in these activities.

Instructors/moderators can remove those whose names do not appear on class rosters. Non-compliance may be investigated under relevant University of Calgary conduct policies (e.g [Student Non-Academic Misconduct Policy](#)). If participants have difficulties complying with this requirement, they should email the instructor of the class explaining why, so the instructor may consider whether to grant an exception, and on what terms. For more information on how to get the most out of your zoom sessions visit:

<https://elearn.ucalgary.ca/guidelines-for-zoom/>

If you are unable to attend a Zoom session, please contact your instructor in advance to arrange an alternative activity for the missed session (e.g., to review the recorded session). Please be prepared, as best as you are able, to join class in a quiet space that will allow you to be fully present and engaged in Zoom sessions. Students will be advised by their instructor when they are expected to turn on their webcam (for group work, presentations, etc.).

The instructor may record online Zoom class sessions for the purposes of supporting student learning in this class – such as making the recording available for review of the session or for students who miss a session. Students will be advised before the instructor initiates a recording of a Zoom session. These recordings will be used to support student learning only and will not be shared or used for any other purpose.

## Special Budgetary Requirements

Special budgetary requirements are limited to the optional purchase of course readings and, in specific courses, mandatory supplementary fees to cover certain expenditures, such as field trips. Mandatory supplementary fees must be approved by the University prior to implementation. Instructors are required to list and describe approved optional and mandatory supplementary fees for courses. This can include possible costs incurred for special materials, equipment, services, or travel.

### **Optional:**

For certain courses students may be given the option of purchasing course readings. In these cases the cost of the reading package should be stated in the course outline. When course readings are available for purchase, a minimum of two copies of the readings must be made available at the SAPL Reception or online.

## University of Calgary Policies and Supports

**COVID-19 PROCEDURE FOR SICK STUDENTS:** <https://ucalgary.ca/risk/sites/default/files/Covid-19%20Folder/COVID-19-Procedure-for-Sick-Students.pdf>

### **ACADEMIC ACCOMMODATION**

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The student accommodation policy can be found at: <https://www.ucalgary.ca/legal-services/university-policies-procedures/student-accommodation-policy>

Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities: <https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure>

Students needing an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to their instructor (contact information on first page above).

SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit [www.ucalgary.ca/access/](http://www.ucalgary.ca/access/).

### **ACADEMIC MISCONDUCT**

Academic Misconduct refers to student behavior which compromises proper assessment of a student's academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

For information on the Student Academic Misconduct Policy and Procedure please visit:

<https://ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf>

<https://ucalgary.ca/policies/files/policies/student-academic-misconduct-procedure.pdf>

Additional information is available on the Academic Integrity Website

at <https://ucalgary.ca/student-services/student-success/learning/academic-integrity>.

### **COPYRIGHT LEGISLATION:**

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright ([www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf](http://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf)) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy (<https://www.ucalgary.ca/pubs/calendar/current/k.html>).

### **INSTRUCTOR INTELLECTUAL PROPERTY**

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

### **FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY**

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

### **SEXUAL VIOLENCE POLICY**

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at <https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>

**UNIVERSITY STUDENT APPEALS OFFICE:** If a student has a concern about the course, academic matter, or a grade that they have been assigned, they must first communicate this concern with the instructor. If the concern cannot be resolved with the instructor, the student can proceed with an academic appeal, which normally begins with the Faculty. <https://www.ucalgary.ca/secretariat/student-appeals>

#### **OTHER IMPORTANT INFORMATION**

Please visit the Registrar's website at:

<https://www.ucalgary.ca/registrar/registration/course-outlines> for additional important information on the following:

- Wellness and Mental Health Resources
- Student Success
- Student Ombuds Office
- Student Union (SU) Information
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk