

# **CEE 4720 STRUCTURAL STEEL DESIGN (Project-Based) (3-credit)**

**Fall Semester - 2023**

**Mode of Instruction:** In-person

**Classroom:** VOTEY 303

**Course Website:** <https://brightspace.uvm.edu/>

**Time:** MWF 10:50 – 11:40 AM

**Instructor:** Dr. Priyantha Wijesinghe

**Office:** VOTEY 235A

**Email:** [pwijesin@uvm.edu](mailto:pwijesin@uvm.edu)

**Student Hours and my availability:** Tuesdays and Thursdays 1- 2 PM; Wednesdays 9:30 – 10:30 AM or by appointment.

**Purpose of Student Hours:** Meet and greet and get to know each other (beginning of the semester); quick chat; help with course material; talk about school, life, future plans, etc.; and tips for mindfulness. If you cannot meet in person, please let me know in advance so we can meet via Teams. Feel free to use [this link](#) to block meeting times in advance.

If you need help, try to utilize the Student Hours. If you need additional help at other times, email me, and I will get back to you as soon as possible. I will not be available for immediate help after working hours and on weekends.

## **COURSE CATALOG DESCRIPTION:**

**CEE 4720 Structural Steel Design.** Theory and design of steel structures including flexural members, axially loaded members, and combined stress members; design of composite members; and plastic analysis and design; project-based. Prerequisite: CEE 3700 Structural Analysis.

## **COURSE OBJECTIVES:**

### ***Overall***

We will study the fundamental principles behind the analysis and design of modern steel structures in this course, emphasizing the design of steel members. We will learn the relationship between applied loads and their effect on steel structures with a basic understanding of various modes of failure of steel members. Analysis and design of tension, compression, flexural, and combined stress members and simple connections will also be covered. Your group design project will include designing a real-world multi-story structure and analyzing it using SAP2000. We will cover the concepts of both Load and Resistance Factor Design (LRFD) and Allowable Stress Design (ASD) methods following the 16<sup>th</sup> edition of the AISC Steel Construction Manual.

### ***Specific Learning Outcomes:***

Upon completion of *CEE 4720 Structural Steel Design*, you will be able to:

1. Identify steel as a structural material; review its material properties and identify different geometric shapes (hot-rolled and cold-formed)
2. Explain the specifications, loads, and design philosophies, and discuss the difference between ASD and LRFD methods
3. Analyze and design tension members for yield, fracture, and block shear
4. Analyze and design compression members for buckling and yield
5. Apply plastic analysis to steel I beams
6. Apply lateral/torsional buckling to analyze and design beams
7. Integrate the considerations for shear, compact requirements, and deflection limits
8. Identify and explain different types of lateral force resisting systems in steel structures
9. Design for combined stresses under bending and axial load

10. Design and analyze a real-world steel structure using SAP2000 and verify the analysis results using hand calculations

**Career Readiness Skills you will gain in this course:**

- Computer skills (Structural Analysis Software – SAP2000)
- Teamwork
- Design Thinking (Structural Steel Design Project)

**Mindfulness Practices and Contemplative Learning Activities:**

Mindfulness is a way of attending to the experience of the present moment in a way that is fully aware and without judgment or reactivity. You will have the opportunity to practice short mindfulness activities throughout the course together with other contemplative learning activities (examining your thoughts and feelings related to the classroom content and your learning experience).

Through mindfulness practices and contemplative learning activities, you will be able to,

⊕ Develop qualities to enhance attention, increase creativity, improve listening, and strengthen critical thinking skills

⊕ Deepen your understanding of self and others

⊕ Articulate the power of empathy in helping us see our common humanity and strive for truth and justice in the world.

**Scholarship of Teaching and Learning (SoTL) Research:** I am participating in a UVM Center for Teaching and Learning initiative on the Scholarship of Teaching and Learning research study. I am working with CTL personnel Dr. Holly Buckland Parker to investigate the impact of mindfulness practices on student focus, attention, and problem-solving skills in this course. To do this, we'll ask you for feedback throughout the course through short electronic surveys and student focus groups (which occur towards the end of the semester). The attached Research Information sheet will give you additional information about the survey. Please read this sheet before choosing whether to complete the survey. We'll also review overall class performance on assignments and compare it to previous years. There is nothing extra you need to do to participate in this research. We will never mention your name, and your work will always remain anonymous. We're assessing how elements of the course help or hinder student learning, not the performance of individual students. If you do not feel comfortable participating, you do not need to complete any survey measures. Please feel free to talk with me about any questions you have. As students, you will have the choice to participate or not in this research, and participation will not impact your grades.

**RELATIONSHIP TO ABET STUDENT OUTCOMES (Criterion 3)**

| <i>Level of Instruction (1-2)<br/>M: moderate<br/>H: High</i> | <i>Outcome #</i> | <i>ABET Outcome</i>   |
|---|------------------|---|
| <i>H</i>  | <i>1</i>         | <i>an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics</i>  |
| <i>H</i>  | <i>2</i>         | <i>an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors</i> |

|          |   |   |
|----------|---|---|
| <i>M</i> | 5 | <i>an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives</i> |
| <i>M</i> | 7 | <i>an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.</i>  |

**TEXTBOOK (recommended):**

Structural Steel Design by Jack C. McCormac and Stephen F. Csernak, 7th Edition, Pearson, 2023.

**STEEL MANUAL (required):**

AISC Steel Construction Manual, 16<sup>th</sup> Edition, American Institute of Steel Construction, Inc.

**Note:**

You can purchase a hard copy of this manual through the instructor for \$125 (+ shipping and sales tax, where applicable) through the AISC Student Discount Program. The "Class Key" to obtain a unique "Discount Code" to purchase the AISC Manual will be provided on the first day of classes.

**REFERENCE BOOKS:**

- Steel Design by William T. Segui, 6<sup>th</sup> Edition, Cengage Learning, 2018.
- Steel Structures: Design and Behavior by Charles G. Salmon, John E. Johnson and Farris A. Malhas, 5<sup>th</sup> Edition, Prentice Hall, 2009.

**PEDAGOGY**

I will lead you through a review of reading and readiness assignments, case studies, and several example problems in each lecture period, with opportunities to pause, reflect, and comment on what you've learned. You will work in small groups and actively participate in your learning during class. Physical models and simulations will be used to demonstrate key concepts. New topics will be grounded in real-world examples and case studies throughout. I expect you to actively participate in class discussions, activities, and group projects throughout the semester. Various contemplative activities will be infused into your learning activities. You should expect to spend 6-8 hours a week on coursework outside class, with additional time for the semester-long group project.

**Classroom Environment Expectations:**

In this class, we will work together to develop a learning community that is inclusive and respectful. As a learning community, we will seek to encourage and appreciate expressions of different ideas, opinions, and beliefs in the spirit of Our Common Ground. Meaningful and constructive dialogue is encouraged in this class. This requires mutual respect, willingness to listen, and open-mindedness to opposing points of view. Respect for individual differences and alternative viewpoints will be maintained at all times in this class. Conduct that substantially or repeatedly disrupts the ability of faculty and instructors to teach and the ability of students to engage may result in my asking a student to temporarily leave the classroom. [See Undergraduate Catalogue - Classroom Code of Conduct \(p. 443-444\).](#)

**Inclusive Learning Environment**

Our intention is for CEMS to be a place where you will be treated with respect and kindness. We welcome individuals of all ages, backgrounds, beliefs, interests, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, abilities – and other visible and nonvisible differences. All members of the College are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the community. If you ever feel that you have been

unfairly treated or judged by an instructor, a mentor, another student, or another member of the CEMS community, please let someone know. Your instructors and advisors in the [CEMS Office of Student Services](#) are available to discuss any concerns, or you can report an incident of bias through the [Campus Bias Response Program](#).

**GRADING:**

|                                    |  |
|------------------------------------|--|
| Class attendance and participation | 10% (in-class and via Brightspace)       |
| Homework and Case Study Quizzes    | 20% (will be assigned periodically)      |
| Midterm Exams                      | 20% (two one-hour exams, each count 10%) |
| Group Project                      | 30%                                      |
| Final Exam (comprehensive)         | 20% (due during finals week)             |
| -----                              |  |
| Total                              | 100%                                     |

The minimum passing grade is 60%. Other grades will be assigned as shown below.

| Letter Grade | Numerical Grade | Letter Grade | Numerical Grade |
|--------------|-----------------|--------------|-----------------|
| A+           | 97-100          | C            | 73-76           |
| A            | 94-97           | C-           | 70-72           |
| A-           | 90-93           | D+           | 67-69           |
| B+           | 87-89           | D            | 63-66           |
| B            | 83-86           | D-           | 60-62           |
| B-           | 80-82           | F            | <60             |
| C+           | 77-79           |              |                 |

A statistical scale may be used at the instructor's judgment in addition to the above scale.

**EXAM AND HOMEWORK POLICIES:**

Midterm Exams are scheduled as follows:

***In-class Midterm Exam 1: Friday, October 6, 2023***

***In-class Midterm Exam 2: Friday, November 10, 2023***

***In-class Final Exam: Tuesday, December 12, 2023, from 1:30 – 4:15 PM***

All exams will be timed, delivered in class, and proctored. Make-up exams will be given at my discretion. You will need to provide appropriate, valid documentation of absence for consideration of a make-up exam. I strongly encourage you to obtain prior permission from me. Examples of valid reasons are injury or illness that is too severe or contagious for you to attend, participation in a university-authorized activity, death or major illness in your immediate family, time conflicts with other courses, or important travel plans (made before the first day of class – August 28, 2023). I will post additional instructions on Brightspace a week before the exam date.

I will assign weekly homework assignments via Gradscope with direct links on Brightspace. You must submit all homework assignments **electronically as a single PDF file** (unless noted otherwise) using the correct Brightspace assignment link before the due date. **I will not accept email submissions.** Please follow the guidelines and the HW format posted on Brightspace to prepare your solutions. If you do not have access to a scanner, please use Genius Scan (on iOS) or TinyScanner (on Android) to convert your hand-written solutions to PDF.

I will not accept late assignments, and there will be no make-up quizzes or make-up in-class questions and activities. Please note that I will drop the two lowest quiz/RAT grades and the lowest HW grade.

Use of ChatGPT (or other similar tools or software that generate suggested text) is not allowed in this class for any part of a graded assignment, including generation of ideas, writing of text, or rewriting your own work. Doing so is considered a violation of the cheating and plagiarism standards of the UVM Code of Academic Integrity. Violations could result in failure of the assignment or failure of the course and a notation on your transcript. Please read the assignment description carefully for the type of collaboration, i.e., teamwork vs. individual effort.

## **COURSE OUTLINE**

### **1.0 Introduction to Structural Steel Design (text chapter 1)**

- 1.1 Steel as a Structural Material (text sections 1.1-1.3)
- 1.2 Steel Sections (Hot-rolled and Cold-formed) (text sections 1.4 & 1.6)
- 1.3 Properties of Structural Steel (Stress-Strain Relationship, etc.) (text sections 1.7, 1.10 & 1.12)
- 1.4 Types of Structural Steel (text sections 1.8 & 1.9)
- 1.5 Design of Steel Members (text sections 1.13 - 1.17)

### **2.0 Specifications, Loads and Design Philosophies (text chapter 2)**

- 2.1 Specifications and Building Codes (text section 2.1)
- 2.2 Loads (Dead Load, Live Load and Environmental Loads) (text sections 2.2 - 2.5)
- 2.3 Design Philosophies (text sections 2.6-2.11)
- 2.4 Allowable Strength Design (ASD) (text sections 2.6-2.11)
- 2.5 Load and Resistance Factor Design (LRFD) (text sections 2.6-2.11)
- 2.6 Safety Factor and Resistance Factor (text sections 2.12-2.13)

### **3.0 Analysis and Design of Tension Members (text chapters 3 & 4)**

- 3.1 Introduction (text sections 3.1 - 3.2)
- 3.2 Net Area and Gross Area (text section 3.3)
- 3.3 Tensile Strengths (text section 3.2)
- 3.4 Effective Area (text section 3.5)
- 3.5 Staggered Holes (text section 3.4)
- 3.6 Block Shear (text section 3.7)
- 3.7 Design of Tension Members (text section 4.1)
- 3.8 Rods and Bars (text section 4.3)
- 3.9 Tension Members in Roof Trusses (text section 4.3)

### **4.0 Analysis and Design of Axially Loaded Compression Members (text chapters 5 - 7)**

- 4.1 Introduction (text sections 5.1 & 5.3)
- 4.2 The Euler Formula (text section 5.5)
- 4.3 Effective Lengths of Columns (text section 5.6)
- 4.4 Local Stability (text section 5.7)
- 4.5 Long, Short and Intermediate Columns (text section 5.8)
- 4.6 AISC Column Formulas (text section 5.9)
- 4.7 Design of Compression Members (text section 6.1 & 6.2)
- 4.8 Further Discussion of Effective Lengths (text section 7.1 & 7.2)
- 4.9 Flexural-Torsional Buckling (text section 6.10)

### **5.0 Analysis and Design of Flexural Members (text chapters 8 - 10)**

- 5.1 Introduction and Types of Beams (text sections 8.1 - 8.3)
- 5.2 Plastic Analysis (text sections 8.4 - 8.8)
- 5.3 Bending Strength of Compact Shapes (text sections 9.2 - 9.8)
- 5.4 Bending Strength of Noncompact Shapes (text section 9.9)
- 5.5 Shear Strength (text section 10.2)

- 5.6 Deflection (*text section 10.3*)
- 5.7 Design
- 5.8 Floor and Roof Framing Systems

**Added: Lateral Force Resisting Systems in Steel (Wind and Seismic)**

**6.0 Design of Beam-Columns (*text chapter 11*) (if time permits)**

Introduction and Design Examples

**7.0 Design of Simple Connections (*text chapters 12 - 15*) (if time permits)**

Introduction and Design Examples

**REQUIRED SOFTWARE AND PLATFORMS:**

Please read this technology checklist to make sure you are ready for classes.

<https://www.uvm.edu/it/kb/student-technology-resources/>

You should contact the Helpline (802-656-2604) for support with technical issues.

The UVM Knowledge Base has many helpful articles and how-to guides on the various teaching and learning platforms supported at UVM: <https://www.uvm.edu/it/kb/>

This course uses resources in different formats. Please make sure that you can open a PDF document and watch a YouTube video. Adobe Acrobat Reader is needed to view PDF documents. If you do not have adobe reader on your computer, you can download it for free from the Adobe website at <http://www.adobe.com>.

**Brightspace:**

Please note that Brightspace has replaced Blackboard as the UVM LMS. Make sure you are using a supported browser to access Brightspace. For Brightspace information, you can access the following UVM Knowledge Base article:

<https://www.uvm.edu/it/kb/article/brightspace-for-students/>

Brightspace will be used to (a) organize and post all course materials, (b) carry out class discussions, (c) deliver and collect homework assignments (via Gradescope links) and exams, (d) post grades, and (e) post weekly announcements.

**Gradescope:**

[Gradescope](#) will be used to deliver and collect all assignments except exams. It is fully integrated with Brightspace and does not require separate login credentials. It will be used to grade all your assignments and to provide formative, unbiased, and consistent feedback. Please make sure to login to Gradescope using the corresponding Brightspace assignment link. You can learn more about the Gradescope submission process [here](#).

More tips and student resources can be found at the Gradescope [Student Center](#).

**MS Teams**

MS Teams will be used for Student Hours for those who cannot meet in-person. Please [follow this link](#) for instructions to download MS Teams.

**SAP2000**

SAP2000 is a structural analysis software that you will use for the group design project. You can access SAP2000 via Virtual Votey. Please follow these [instructions](#) to connect.

**Netiquette**

Netiquette stands for Network Etiquette. It refers to proper behavior while interacting online. The golden rule of netiquette is essentially to treat people as you would want to be treated. Please be polite and considerate. Think about whether your comment could cause hurt feelings. Be careful about how your words can come across because misunderstandings can be common online.

## **Other UVM Policies, Guidelines and Resources**

### **Attendance and Illness:**

You are expected to attend all regularly scheduled classes. With the exceptions outlined in the [Attendance Policy](#), the instructor has the final authority to excuse absences. Please note that class attendance and participation count 10% towards the overall course grade.

If a student will not be able to attend in-person classes for qualifying health reasons, Student Health Services (SHS) will send a notification to the [CEMS Office of Student Services](#) informing them of this along with the dates the student is unable to attend. The SHS notification will specify whether the request for flexibility is only around in-person class attendance or includes additional flexibility for assignments and tests because the student is too ill to participate. Students are responsible for working with the instructor to make up class content and work you miss due to a documented illness.

### **UVM Land Acknowledgement:**

The campus of the University of Vermont sits within a place of gathering and exchange, shaped by water and stewarded by ongoing generations of Indigenous peoples, in particular the Western Abenaki. Acknowledging the relations between water, land, and people is in harmony with the mission of the university. Acknowledging the serious and significant impacts of our histories on Indigenous peoples and their homelands is a part of the university's ongoing work of teaching, research, and engagement and an essential reminder of our past and our interconnected futures for the many of us gathered on this land. UVM respects the Indigenous knowledge interwoven in this place and commits to uplifting the Indigenous peoples and cultures present on this land and within our community.

### **Recording Class Sessions:**

If need arises, our class sessions may be audio-visually recorded for students in the class to refer back to, and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who unmute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the chat feature, which allows students to type questions and comments live.

### **Lived Name and Pronoun Information**

The UVM Directory includes fields for indicating your lived name and your pronouns. Lived names (preferred names, names in use) are names that an individual wants to be known by in the University community. Entering your pronouns is strongly encouraged to help create a more inclusive and respectful campus community. To update your information, login to the UVM Directory. A preview box will allow you to see how this information will appear in other systems used on campus such as Microsoft Teams and Brightspace.

More information about how to make changes to your lived name and pronouns is available in the [Knowledge Base](#).

To read more about official UVM policies, events, and initiatives regarding diversity, equity, and inclusion: <https://www.uvm.edu/diversity>

### **Academic Integrity and AI**

Offences against the **Code of Academic Integrity** are deemed serious and insult the integrity of the entire academic community. This policy addresses plagiarism, fabrication, collusion, and cheating. <https://www.uvm.edu/sites/default/files/UVM-Policies/policies/acadintegrity.pdf> (PDF link). Any suspected violations of the code are taken very seriously and will be forwarded to the [Center for Student Conduct](#) for further intervention.

### **Code of Student Conduct:**

[UVM's Code of Student Conduct](#) outlines conduct expectations as well as students' rights and responsibilities.

### **Course Evaluation:**

All students are expected to complete a mid-term evaluation and final evaluation of each course they are enrolled in. Course evaluations are anonymous and confidential. The information gained through the course evaluation, including constructive criticisms of the instructor, will be used to improve future versions of the course. You can access Blue course evaluation via Brightspace institutional homepage, or by visiting <https://blue.uvm.edu/uvm>. More instructions can be found in [this Knowledge Base article](#).

### **General statement regarding potential changes during the semester:**

<http://catalogue.uvm.edu/>

The University of Vermont reserves the right to make changes in the course offerings, mode of delivery, degree requirements, charges, regulations, and procedures contained herein as educational, financial, and health, safety, and welfare considerations require, or as necessary to be compliant with governmental, accreditation, or public health directives.

### **Intellectual Property Statement/Prohibition on Sharing Academic Materials:**

Students are prohibited from publicly sharing or selling academic materials that they did not author (for example: class syllabus, outlines or class presentations authored by the professor, practice questions, text from the textbook or other copyrighted class materials, etc.); and students are prohibited from sharing assessments (for example homework or a take-home examination). Violations will be handled under UVM's Intellectual Property policy and Code of Academic Integrity. Please note that 'sharing assessments' may also include course materials that students share on study sites such as Chegg and Course Hero.

### **Student Learning Accommodations:**

In keeping with University policy, any student with a documented disability interested in utilizing ADA accommodations should contact Student Accessibility Services (SAS), the office of Disability Services on campus for students. SAS works with students and faculty in an interactive process to explore reasonable and appropriate accommodations, which are communicated to faculty in an accommodation letter. All students are strongly recommended to discuss with their faculty the accommodations they plan to use in each course. Faculty who receive Letters of Accommodation with [Disability Related Flexible accommodations](#) will need to fill out the Disability Related Flexibility Agreement. Any questions from faculty or students on the agreement should be directed to the SAS specialist who is indicated on the letter.

### **Contact Student Accessibility Services (SAS):**

A170 Living/Learning Center  
[802-656-7753](tel:802-656-7753) (phone link)



[access@uvm.edu](mailto:access@uvm.edu) (email link)

[https://www.uvm.edu/academicsuccess/student\\_accessibility\\_services](https://www.uvm.edu/academicsuccess/student_accessibility_services)

### **Health and Wellbeing**

The Center for Health & Wellbeing (CHWB) offers a wide range of services to support your mind, body, and soul while you're at UVM. The Student Health Services staff of board certified physicians, physician assistants, nurse practitioners, nurses, and dietitians work with patients and collaborate with other CHWB providers to ensure personalized and timely care to UVM students. Counseling & Psychiatry Services (CAPS) offers short-term individual counseling, urgent needs counseling, group counseling, outreach and education, psychiatry, referrals, and consultation services.

Please visit their website at: <http://www.uvm.edu/~chwb/> to find out more.

At Living Well they believe that mental and physical health go hand in hand. They have a variety of programs that offer you the space to create a wellness practice that will support your goals and positive intentions. I highly recommend you to visit their LivingWell website at

<http://www.uvm.edu/~chwb/livingwell/> and checkout the meditation and yoga videos.

Extensive research has shown the benefits of meditation towards the learning process.

[http://www.huffingtonpost.com/2013/04/08/mindfulness-meditation-benefits-health\\_n\\_3016045.html](http://www.huffingtonpost.com/2013/04/08/mindfulness-meditation-benefits-health_n_3016045.html)

### **Counseling & Psychiatry Services (CAPS)**

Phone: (802) 656-3340

**C.A.R.E.** If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (802-656-3380). If you would like to remain anonymous, you can report your concerns online by visiting the Dean of Students website at

<https://www.uvm.edu/studentaffairs>

**Food Insecurity:** The UVM Center for Health & Wellbeing provides several on- and off-campus resources for students struggling with food insecurity: <https://www.uvm.edu/health/food-insecurity-uvm>

### **Tips for Success:**

#### ***Course-specific study/preparation tips***

Checklist for success in <https://learn.uvm.edu/about/support-for-students/checklist-online-credit-courses/>

- Academic support for online courses: <https://www.uvm.edu/academicsuccess/online-learning-student-resources-remote-instruction>
- 30-minute webinar on online learning success (Mar 2020):  
[https://www.youtube.com/watch?v=Xp\\_MYsqQyvE](https://www.youtube.com/watch?v=Xp_MYsqQyvE)

Helpful resources other than the professor (e.g. [Undergraduate/Graduate Writing Center](#), [Supplemental Instruction](#), [Learning Co-op tutors](#), supplemental course materials)

### **Religious Holiday Policy Statement**

Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence to me in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed-upon time. The complete policy is [here](#).

### **Grading:**

Your grades will be posted on Brightspace. Please check your grades frequently and notify me if you find any mistakes. [This link](#) offers information on grading and GPA calculation.

### **Grade Appeals:**

If you would like to contest a grade, please follow the procedures [outlined in this policy](#).

### **FERPA Rights Disclosure:**

The purpose of UVM's [FERPA Rights Disclosure](#) is to communicate the rights of students regarding access to, and privacy of their student educational records as provided for in the Family Educational Rights and Privacy Act (FERPA) of 1974.

**Final exam policy:**

The University [final exam policy](#) outlines expectations during final exams and explains timing and process of examination period.

**Statement on Alcohol and Cannabis in the Academic Environment**

As a faculty member, I want you to get the most you can out of this course. You play a crucial role in your education and in your readiness to learn and fully engage with the course material. It is important to note that alcohol and cannabis have no place in an academic environment. They can seriously impair your ability to learn and retain information not only in the moment you may be using, but up to 48 hours or more afterwards. In addition, alcohol and cannabis can:

- Cause issues with attention, memory and concentration
- Negatively impact the quality of how information is processed and ultimately stored
- Affect sleep patterns, which interferes with long-term memory formation.
- It is my expectation that you will do everything you can to optimize your learning and to fully participate in this course.