

COURSE SYLLABUS



COURSE TITLE: AET 450 - Ergonomics

CLASS SECTION: X01

TERM: Winter 2025

COURSE CREDITS: 3 credits

DELIVERY METHOD(S): Lecture and Lab

For COVID-19 information please visit <https://legacy.camosun.ca/covid19/index.html>.

Camosun College campuses are located on the traditional territories of the Ləkʷəŋən and W̱SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here. Learn more about Camosun's [Territorial Acknowledgement](#).

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable explanation in advance, you will be removed from the course and the space offered to the next waitlisted student.

INSTRUCTOR DETAILS

NAME: Melissa Roumanis M.Sc., CAT(C)

EMAIL: roumanism@camosun.bc.ca

OFFICE: PISE 212A

IA: Mike Davies (daviesm@camosun.ca)

HOURS: Mondays 2:30-3:30PM, Thursdays 2:30-3:30PM, Fridays 12:30-2:30PM, or by appointment

As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.

CALENDAR DESCRIPTION

The capabilities and limitations of human performance in home, office and industrial settings including the design of work, the workplace environment and work methods to prevent injuries and fatigue. Focus is on physical demands of work, legal and regulatory issues and the impact on work, human-system interaction and human errors. Open to Athletic & Exercise Therapy students only

PREREQUISITE(S): All of C in AET 440 and in PHYS 160

COREQUISITE(S): AET 481

COURSE LEARNING OUTCOMES / OBJECTIVES

- Apply basic ergonomic principles to prevent occupational injuries
- Identify the physical and mental demands of a variety of occupations
- Explain the material handling principles for a variety of occupations
- Discuss the effect of working hours and lifestyle behaviors on the worker and the workplace
- Explain environment ergonomic considerations such as lighting, ventilation, noise, and their effect on the worker and the workplace
- Discuss any cultural, ethnic, gender, age, and functional ability differences and considerations across occupations and work-related environments
- Discuss the unintended effects that ergonomics interventions might have
- Administer a functional capacity evaluation
- Demonstrate the ability to complete a physical demands analysis
- Design and/or re-design ergonomically correct workstations in a variety of settings

REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

Required:

Bridger, R.S. 2018. Introduction to Ergonomics (4th Ed). CRC Press. Taylor and Francis Group, Boca Raton FL. ISBN: 978-1498795944

Referenced:

Jacobs, K. 2017. Ergonomics for Therapists. Mosby Elsevier, St. Louis, MO. ISBN 978-0323048538

COURSE SCHEDULE, TOPICS, AND ASSOCIATED PREPARATION / ACTIVITY / EVALUATION

Lectures:

Wednesday: 8:30am – 10:00am PISE 329B

Thursdays: 1:00pm – 2:30pm PISE 329A

Lab:

Fridays: 10:30am-12:30pm LACC 107 (Alternating Lab Groups)

***January 24th Both LABS** touring Sonography (1-3PM) in CHW

***April 4th Both LABS** Present Exercise Pamphlet to Sonography (1-2:30PM) in AET Clinic

The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

Tentative Schedule		
Week	Lectures	Lab
1	January 8th Course Introduction Chapter 1: Introduction to Human Factors and Ergonomics Ergonomics and Athletic Therapy	January 12th Office Ergonomics “How to Make your Computer Station Fit You” LAB A
	January 9th Chapter 2: The Body as a Mechanical System	
2	January 15th Chapter 3: Anthropometry, Workstation, and Facilities Design	January 17th Office Ergonomics “How to Make your Computer Station Fit You” LAB B
	January 16th Chapter 3: Anthropometry, Workstation, and Facilities Design	
3	January 22nd Chapter 4: Standing and Sitting at Work	January 24th Sonography Tour Camosun College-Location CHW GROUP A 1-2PM GROUP B 2-3 PM BOTH LABS GROUPS
	January 23rd Chapter 5: Repetitive Tasks: Risk Assessment and Task Design	
4	January 29th Chapter 5: Repetitive Tasks: Risk Assessment and Task Design	January 31st Functional Anthropometry Work Assessment LAB A
	January 30th Chapter 6: Design of Manual Handling and Load Carriage Tasks	
5	February 5th Chapter 6: Design of Manual Handling and Load Carriage Tasks	February 7th Functional Anthropometry Work Assessment LAB B
	February 6th Chapter 7: Work Capacity, Stress, Fatigue, and Recovery ERGONOMIC ASSESSMENT ASSIGNMENT DUE DATE 15%	
6	February 12th Chapter 7: Work Capacity, Stress, Fatigue, and Recovery	February 14th Functional Capacity Evaluation (FCE) Physical Demands Analysis (PDA)

	February 13th Chapter 8: Job Demands, Health, and Well-Being for a Changing Population	LAB A
7	February 19th COLLEGE CLOSED – Reading Week	February 21rd NO LAB-COLLEGE CLOSED
	February 20th COLLEGE CLOSED – Reading Week	
8	February 26th MIDTERM WEEK	February 28th MIDTERM WEEK
	February 27th MIDTERM WEEK	
9	March 5th Chapter 8: Job Demands, Health, and Well-Being for a Changing Population	March 7th Functional Capacity Evaluation (FCE) Physical Demands Analysis (PDA) LAB B
	March 6th Chapter 9: Working in Hot and Cold Climates	
10	March 12th Chapter 10: The Visual Environment: Measurement and Design	March 14th Observing and Coaching Occupational athletes & Athletic Therapy & Ergonomics MSI Prevention Process LAB A
	March 13th Chapter 11: Hearing, Sound, Noise, and Vibration	
11	March 19th Chapter 12: The Mind at Work: Intention, Action, and Interpretation	March 21st Observing and Coaching Occupational athletes & Athletic Therapy & Ergonomics MSI Prevention Process LAB B
	March 20th Chapter 13: Displays and Controls PDA & FCE ASSIGNMENT DUE DATE 15%	
12	March 26th Chapter 14: Interactive Devices	March 28th NO LAB
	March 27th Chapter 15: HFE in Accident Investigation and Safety Management Ergonomics Pamphlet Due 15%	
13	April 2nd Guest Speaker about Pain	April 4th Present Pamphlet Sonography Department Camosun College: Location AET Clinic

	April 3^d Selection of Pamphlet for Sonography	GROUP B 1:00-1:45PM GROUP A 1:45-2:30 PM
14	April 8th Review	April 11th NO LAB
	April 11th Review	
15	FINALS APRIL 14th-25th	

Students registered with the Centre for Accessible Learning (CAL) who complete quizzes, tests, and exams with academic accommodations have booking procedures and deadlines with CAL where advanced notice is required. Deadlines can be reviewed on the [CAL exams page](http://camosun.ca/services/accessiblelearning/exams.html).
<http://camosun.ca/services/accessiblelearning/exams.html>

EVALUATION OF LEARNING

DESCRIPTION	WEIGHTING
Ergonomic Assessment Assignment Due Feb 6th 11:59pm	15%
Physical Demands Analysis & Functional Capacity Evaluation Assignment Due March 20st 11:59pm	20%
Ergonomics Pamphlet Due March 27th 11:59PM	15%
Written Midterm Week 8	25%
Written Final Week 15	25%
	TOTAL
	100%

If you have a concern about a grade you have received for an evaluation, please come and see me as soon as possible. Refer to the [Grade Review and Appeals](http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf) policy for more information.
<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf>

COURSE GUIDELINES & EXPECTATIONS

Due Dates: There will be a zero-tolerance in effect for missing due dates. All due dates are clearly listed in the schedule above. Students who might miss a deadline for legitimate reasons are to contact the instructor immediately and in advance of the due date.

SCHOOL OR DEPARTMENTAL INFORMATION

Grading System

(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.)

(Mark with "X" in box below to show appropriate approved grading system – see last page of this template.)

Standard Grading System (GPA)

Competency Based Grading System

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

STUDENT RESPONSIBILITY

Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

SUPPORTS AND SERVICES FOR STUDENTS

Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit <http://camosun.ca/students/>.

Support Service	Website
Academic Advising	http://camosun.ca/advising
Accessible Learning	http://camosun.ca/accessible-learning
Counselling	http://camosun.ca/counselling
Career Services	http://camosun.ca/coop
Financial Aid and Awards	http://camosun.ca/financialaid
Help Centres (Math/English/Science)	http://camosun.ca/help-centres
Indigenous Student Support	http://camosun.ca/indigenous
International Student Support	http://camosun.ca/international/
Learning Skills	http://camosun.ca/learningskill_s
Library	http://camosun.ca/services/library/
Office of Student Support	http://camosun.ca/oss
Ombudsperson	http://camosun.ca/ombuds
Registration	http://camosun.ca/registration
Technology Support	http://camosun.ca/its
Writing Centre	http://camosun.ca/writing-centre

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

Academic Accommodations for Students with Disabilities

The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the [Centre for Accessible Learning](#) (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the

appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started:

<http://camosun.ca/services/accessible-learning/>

Academic Integrity

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e1.13.pdf> for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

Academic Progress

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

Course Withdrawals Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <http://camosun.ca/learn/fees/#deadlines>.

Grading Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for further details about grading.

Grade Review and Appeals

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

Mandatory Attendance for First Class Meeting of Each Course

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the "Attendance" section under "Registration Policies and Procedures"

(<http://camosun.ca/learn/calendar/current/procedures.html>) and the Grading Policy at <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>.

Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf> to learn more about the process involved in a medical/compassionate withdrawal.

Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun's Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them

understand what supports are available and their options for next steps. The Office of Student Support respects a student's right to choose what is right for them. For more information see Camosun's Sexualized Violence and Misconduct Policy: <http://camosun.ca/about/policies/education-academic/e-2-student-servicesand-support/e-2.9.pdf> and camosun.ca/sexual-violence. To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-3703841

Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College's Student Misconduct Policy at <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf> to understand the College's expectations of academic integrity and student behavioural conduct.

Changes to this Syllabus: Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.