



Day and Time: Tuesday/Thursday - 12:30 - 1:50 pm

Location: Room 223, D.L. Ligon Coliseum

Instructor: Brett Crossland, Ph.D.

Email: brett.crossland@msutexas.edu

Telephone: 940-397-4956

Office: 208 Ligon Coliseum

Office Hours: MW - 9:00-11:00 am, TR - 9:30 - 11:00 am

Important Dates:

First Day of Class – Tuesday, January 20

Spring Break - March 9-14 (No Class)

Easter Break - April 2-3 (No Class)

Last Day of Class - May 7

Exam I - Thursday, February 19

Exam II - Thursday, April 9

Final Exam – Thursday, May 7

Textbook: No textbook is required for this course. All required reading materials will be provided via D2L by the instructor.

Course Objectives:

1. Analyze physiological responses and adaptations to exercise performed under environmental stressors including heat, cold, altitude, air pollution, and humidity using integrative concepts from cardiovascular, respiratory, thermoregulatory, and metabolic physiology.
2. Critically evaluate current scientific literature in environmental exercise physiology, with emphasis on experimental design, methodological rigor, and interpretation of findings related to performance, health, and safety in extreme environments.
3. Apply advanced physiological principles to assess risk and prescribe evidence-based exercise strategies for diverse populations exercising in challenging environmental conditions, including athletes, occupational workers, and clinical or vulnerable groups.

4. Examine the mechanisms underlying environmental illness and injury (e.g., heat exhaustion, heat stroke, hypothermia, altitude sickness, and pollution-related respiratory dysfunction) and evaluate prevention, monitoring, and intervention strategies.
5. Design and justify research-informed protocols or interventions that investigate or mitigate the effects of environmental stress on exercise performance and human health, integrating ethical considerations and translational relevance.

Course Evaluation: Evaluation of the course material will be broken down between three (3) literature review papers, and three (3) exams. Exams will be in person and worth 50% of your overall grade. **MAKE UP EXAMS WILL NOT BE GIVEN AFTER THE SCHEDULED DATE.**

A. Literature Reviews (3 @ 100 pts each)	300 pts	50%
B. Exams (3 @ 100pts each)	<u>300 pts</u>	<u>50%</u>
Total: 600 pts		100%

GRADING SCALE:

Grades will be assigned on the following points needed:

A: $\geq 90.00\%$	≥ 540
B: 80.00-89.99%	480-539
C: 70.00-79.99%	420-479
D: 60.00-69.99%	360-419
F: $\leq 59.99\%$	359 pts and below

Attendance

Attendance at class is **compulsory** if you intend on performing well in this course. Attendance will be taken for each class period. If you are not feeling well, I encourage you to stay away from the classroom. Lectures will not be recorded so it is your responsibility to get notes from fellow classmates.

Classroom Policies: It is assumed that everyone enrolled in this course is here to pursue further knowledge in the area of human movement. The following list provides what will be expected by the instructor and should also be expected by the students:

1. Attendance in class is expected. If you will not be able to participate in a class session please notify the instructor **PRIOR** to your absence in a timely manner. Only those with excuses that are related to University events (academic, athletic, etc.) or religious purposes may make-up work. If you have an excused absence and will not be available for an exam (**EXCLUDING the FINAL EXAM**) you must take the exam **PRIOR** to your absence (**NO EXCUSES!!**).
2. For every unexcused absence above 2, 50 pts will be taken off the total grade.

3. Turn off all cell phones, pagers, and any other electronic devices before class begins. It is disrupting to other students, and disturbing to the instructor if these electronic devices are active during the class period.
4. If you have a question that was not answered during the class period please feel free to stop by my office or email me your question (see front page).
5. Neither academic dishonesty nor plagiarism will be tolerated and as such, disciplinary action will be issued in accordance with university guidelines.

Services for Students with Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please see: <http://www.mwsu.edu/studentlife/disability>.

Tentative Course Schedule

Week	Date	Topic	Assignments
1	1/20	Class Intro / Scope	
1	1/22	Thermoregulation Fundamentals	
2	1/27	Heat	
2	1/29	Heat	
3	2/3	Heat	
3	2/5	Heat	
4	2/10	Cold	
4	2/12	Cold	
5	2/17	Cold	
5	2/19	EXAM #1	Lit. Review #1 - Due 2/22
6	2/24	Altitude	
6	2/26	Altitude	
7	3/3	Altitude	
7	3/5	Altitude	
8	3/17	Air Quality / Pollution	
8	3/19	Air Quality / Pollution	
9	3/24	Under Water	

9	3/26	Under Water	
10	3/31	Microgravity	
11	4/7	Microgravity	
11	4/9	EXAM #2	Lit. Review #2 - Due 4/12
12	4/14	Combined & Extreme Environments	
12	4/16	Occupational Stressors	
13	4/21	Special Populations	
13	4/23	Special Populations	
14	4/28	Clothing, Equipment, & Technology	
14	4/30	Clothing, Equipment, & Technology	
15	5/5	Performance & Safety	
15	5/7	FINAL EXAM	Lit. Review #3 - Due 5/10

College Policies

Campus Carry Rules/Policies

Refer to: Campus Carry Rules and Policies

Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. Adult students may smoke only in the outside designated-smoking areas at each location.

Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

Generative AI Policy

This course assumes that work submitted for a grade by students – all process work, drafts, brainstorming artifacts, final works – will be generated by the students themselves, working individually or in groups as directed by class assignment instructions. This policy indicates the following constitute violations of academic honesty: a student has another person/entity do the work of any substantive portion of a graded assignment for them, which includes purchasing work from a company, hiring a person or company to complete an assignment or exam, and/or using generative AI tools (such as ChatGPT).