



Course Syllabus: Molecular and Cellular Exercise Physiology
College of Health Science & Human Services
EXPH 5093
Spring 2024

Contact Information

Instructor: Dr. Frank B. Wyatt
Office: Ligon 209
Office hours: M, 5pm-7pm; T, 10am-12noon; W, 6am-7am; by appt ONLY
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Course Description

An in-depth exploration of cellular and molecular components specific to exercise and the human body. Topics include the following: genes and exercise phenotypes; proteins and exercise; inter- and intracellular signaling; energy turnover and substrate utilization; cellular responses to environmental stress.

Textbook & Instructional Materials

None...Many...Research Articles

Student Handbook

Refer to: [Student Handbook 2017-18](#)

Academic Misconduct Policy & Procedures

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct.

Grading

Article support of lectures &/or Assignments	30 pts
Mid Term Exam	30 pts.
Final Exam (comprehensive)	<u>40 pts.</u>
Total	100 pts.

A Excellent 90-100

B	Above Average	80-89
C	Average	70-79
D	Below Average	60-69
F	Failure	< 60

Course Schedule

Schedule	Topic
Week 1, Lecture 1	Genes, genetics, human evolution, sport and exercise phenotypes, Part 1
Week 2, Lecture 2	Genes, epigenetics, etc., Part 2
Week 3	*Article summary
Week 4, Lecture 3	Inter, Intra cellular signaling and adaptation to exercise
Week 5, Lecture 4	Molecular adaptation to endurance exercise
Week 6, Lecture 5	Molecular adaptation to resistance exercise
Week 7	*Mid-Term over Previous Material (open book, open note, open mind)
Week 8, Lecture 6	Go over Mid-Term, Energy formation, substrate utilization and molecular nutrition
Week 9, Lecture 7	Cellular Glycogen depletion/replenishment
Week 10	*Article summary
Week 11, Lecture 8	Cellular responses to environmental stress
Week 12, Lecture 9	Cellular/Molecular components of aging
Week 13	*Article summary
Week 14	Review or make-up article summary
Week 15	Review or make-up article summary

Final Exam Comprehensive (open book, open note, open mind)

Course Activity

Each class lecture and content will be posted on D2L. The content of these lectures may be the focus of the class for two or three weeks. During this time, students will be required to do one or more of the following: 1) obtain research articles specific to the content and turn in these peer-reviewed articles in PDF format.; 2) answer questions pertaining to the lecture.

Exams

Two Exams: Mid-Term over material previously presented; Final Exam, Comprehensive.

*Both exams are open note, open book, open mind. NOT OPEN NEIGHBOR

Extra Credit

None!

Late Work

Late work will NOT be accepted

Absences/Attendance

NA

Important Dates

Last day for term schedule changes: Check date on Academic Calendar.

Deadline to file for graduation: Check date on Academic Calendar.

Last Day to drop with a grade of "W:" Check date on Academic Calendar.

Refer to: [Drops, Withdrawals & Void](#)

Desire-to-Learn (D2L)

Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into [D2L](#) through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

Senate Bill 11

Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Areas excluded from concealed carry are appropriately marked, in accordance with state law. For more information regarding campus carry, please refer to the University's webpage at <http://mwsu.edu/campus-carry/rules-policies>

Exclusionary Region

D.L. Ligon Coliseum	Chapter 46 of the Texas Penal Code prohibits firearms on the premises where a high school, collegiate, or professional sporting event or interscholastic event is taking place.	This facility is used for a significant number of MSU sporting events, including basketball, volleyball, weight training, and the exercise physiology and athletic training departments. The majority of events held in the Coliseum are NCAA or UIL events or practices. The Coliseum is a large capacity facility that necessitates additional security protocols to ensure the safety of event participants and spectators.
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Instructor Class Policies

No cell phones unless approved by the instructor.

Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the Schedule of Classes each semester.

Refund and Repayment Policy

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state)

exists in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

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 go to <http://www.mwsu.edu/student-life/disability>.

College Policies

Campus Carry Rules/Policies-**SEE ABOVE**

Refer to: [Campus Carry Rules and Policies](#)

Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products ON CAMPUS! This means that there is NO Tobacco allowed anywhere on campus. Tobacco includes dip.

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.

Grade Appeal Process

Update as needed. Students who wish to appeal a grade should consult the Midwestern State University [Undergraduate Catalog](#)

Notice

Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

