



Course Syllabus: RESEARCH AND DESIGN IN EXERCISE PHYSIOLOGY  
College of Health Science & Human Services  
EXPH 5003  
Fall 2023

Contact Information

Instructor: Dr. Frank B. Wyatt  
Office: Ligon 209  
Office hours: Tues. 7pm-8pm, Wed. 12pm-3pm, Thurs. 6am-7am  
Office phone: (940) 397-6229  
Cell Phone: NA  
Twitter: NA  
E-mail: frank.wyatt@msutexas.edu

Course Description

Introductory principles of scientific inquiry, research methods applicable to these fields, evaluation of published research, and procedures for developing a research design.

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Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given).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

Class Participation and Discussion	10 pts
Mid Term Exam	20 pts.
Final Exam (comprehensive)	30 pts.
Research Project Paper & Presentation	<u>40 pts.</u>
Total	100 pts.

A	<u>Excellent</u>	90-100
B	Above Average	80-89
C	Average	70-79
D	Below Average	60-69
F	Failure	< 60

### Course Schedule

Lecture 1	First class meeting. Syllabus and class expectations. Nature of Research; Scientific Method, Types of Research, Steps in the Research Process. Examples from Journals.
Lecture 2	Identifying Research Problem, Purpose and basis of Lit Review, Steps in Lit Review and critical analysis.
Lecture 3	Stating the Problem, Determining the Hypothesis (es); Definition of Terms, Assumptions, Delimitations, and Limitations. Examples.
Lecture 4	Types of Research. Descriptive, Experimental, Qualitative, Quantitative, Meta-Analysis. Examples;
Lecture 5	Justifying the Significance of the Study, Determining Methodology, Subject Selection/Demographics
Lecture 6	Choosing Data Collection Procedures/Instruments, Description of Design and analysis. Examples.
Meeting 7	Exam # 1
Lecture 7	Go over Exam; Statistical and Measurement Concepts, Basic concepts of Statistical Technique, Mathematical Concepts and Statistical Symbols
Lecture 8	Measuring Research Variables, Validity, Reliability; Acceptance/Rejection of Null Hypothesis. Examples.
Lecture 9	Data Analysis and Interpretation of Data
Lecture 10	Presentation of Research Proposal: Power Point Format
Lecture 11	Presentation of Research Proposal: Power Point Format
Meeting 13	Out for Thanksgiving

Lecture 12                      Presentation of Research Proposal: Power Point Format

Meeting 15                      FINAL EXAM; COMPREHENSIVE

### Course Objectives

This course is intended to introduce the fundamental skills and concepts needed to design and conduct research at the graduate level and develop the ability to evaluate the research of others. Establish the first three chapters in a Master's Thesis.

This course will examine methods of qualitative, descriptive, and experimental inquiry. Emphasis will be placed on the use of references and resources; developing problem statements; purpose of the study; literature review; data collection; data analysis; data interpretation; and areas of additional research.

### Exams

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

### Projects Required

Students will design a research project pertinent to the field of study. They will be responsible for conducting background literature review and determining methodology, selection of subjects, determination of instruments for data collection, and selection of statistical procedures. This will be equivalent to the first three chapters in a Master's Thesis (a research proposal). It will include the following: 1) Introduction; 2) Literature Review; 3) Methodology. A hard copy of this paper (referred to as the "document") will be due for all class members on a specific date.

**PowerPoint Presentation:** Each student will present their research proposal in Power Point on a date determined through random selection procedures.

### Extra Credit

None!

### Late Work

Late work will NOT be accepted

### Absences/Attendance

**There are no excused absences. Therefore, any missed classes will result in a reduction of points (i.e., class participation and discussion). NOTE: because this is an online course, it is understood that students will attend via Zoom video classroom format.**

### 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 84<sup>th</sup> 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.

### 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.