

EXSC 373: Exercise Physiology Laboratory (1 Cr Hr)

Course Syllabus - Fall 2011

Meeting Room: 131 (Starting 9/05/11!)
Days; Time: W, 2:00-4:00 or R, 3:00-5:00

Instructor: Matthew J. Garver, Ph.D.
Office: Gibson 134
Phone: 325 - 674 - 2822
Email: mjg11a@acu.edu



Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
12:00-1:00	9:00-11:00	12:00-1:00	9:00-11:00	12:00-1:00

ACU Mission Statement: The mission of Abilene Christian University is to educate students for Christian service and leadership throughout the world.

College of Education and Human Services Mission Statement: The CEHS is dedicated to equipping leaders for global, urban, cultural and social changes of the 21st century. The college provides leadership in education and human services that is grounded in current research and informed practice.

Department of Kinesiology and Nutrition Mission Statement: The Kinesiology and Nutrition Department trains students to live healthful and physically active lives.

Catalog Description: Laboratory experience offering hands-on practice in fitness testing and evaluation using state-of-the-art technology. Must be taken concurrently with EXSC 372; however, exception is made for EXSS Majors.

Course Description and Audience: This course is intended to provide the student with practical, hands-on experience with assessment and evaluation of human fitness and health status. The course will include techniques to assess cardiovascular function, aerobic and anaerobic fitness, body composition, flexibility, muscular strength and metabolic function. The course will include laboratory techniques as well as record keeping and reporting. This course is intended for Majors in Exercise Science and Health who will pursue degree tracks in EXHP, EXPT, EXOT and NUEx.

Pre-requisite: EXSC 232

Co-requisite: EXSC 372

Competencies and Measurements of Laboratory Techniques and Measurements:

	Competency	Measurement Instrument	Measurement Standard
1	Students will demonstrate the application of a variety of laboratory assessments	Application of a prescribed number of Astrand-Rhyming, YMCA, PWC 170, Wingate Anaerobic Test and Resting Metabolic Rate assessments on volunteer subjects as well as assessments of body composition using skin-fold calipers, hydrostatic weighing, BIE, BMI and anthropometric measures	Students graded according to a checklist on specific steps in test application and accurate test results recorded during a lab practicum exam over randomly chosen techniques, on number of tests performed and pass/non-pass on techniques
2	Students will perform various field tests for muscular strength, endurance and flexibility	Grade based upon completion a lab worksheet for results on at least 3 other classmates	Performance of tests in class time. Completion/non-completion
3	Students will evaluate a set of test results on a single client and prescribe improvement plan	Students will blindly choose 3 assessments to perform on a volunteer client and counsel the client regarding the results in a one-on-one session while monitored by instructor	50% grade based upon accurate technique and results as above and 50% on accurate information (including prescription) as determined by instructor
4	Students will identify important concepts in assessment	Unit Written Examinations	Exams graded on a percentage scale

Course Materials and Support:

Required Texts:

1. Adams & Beam (2008) *Exercise Physiology Lab. Manual* (6th ed.) McGraw-Hill
2. (2009) *ACSM's Guidelines for Exercise Testing and Prescription* (8th ed.) Lippincott Williams & Wilkins

Support: Blackboard access to syllabus, ancillary materials (if needed) and grades. The Professor has scheduled office hours and is available by email and special request.

Teaching Strategies: Short lectures may comprise portions of the laboratory meeting time. Power point presentations, which will coincide with the lectures and be posted on Blackboard prior, are recommended to be brought to class. The majority of laboratory time will be spent in small group practice sessions. Reading will enhance understanding of material and assist students with application of skills – reading of lab materials is expected. Application of learned skills will occur through practice sessions and culminate in a practical examination.

Grading System: Final grades are based on a 500 point scale. Letter grade conversion below:

Letter Grade	Quality Points – GPA	Points Earned	Percentage
A	4.0	450-500	90-100%
B	3.0	400-449.99	80-89.99
C	2.0	375-399.99	75-79.99
D	1.0	350-374.99	70-74.99
F	0	Below 350	Below 70

Grade Breakdown: The grading rubric is provided below:

Lab Book and Measurement Repetitions	200 Points Possible
Completed notebook and practice measurements	
Practical Exam, Interview and Prescription	200 Points Possible
Assessment of ability to conduct various tests on a client. Includes: set up and delivery of tests, correct usage of equipment, interpretation of results and dissemination of information	
Attendance and Participation	100 Points Possible
100% Attendance expected. See Notes Below	
TOTAL POSSIBLE POINTS	500

Grade Deductions: The student's final grade will be lowered by 10 points for each tardy arrival or failure to attend the entire class session.

ADA Compliance: The ACU Student Disability Services Office (a part of Alpha Academic Services) facilitates disability accommodations in cooperation with instructors. In order to be eligible for accommodations, you must be registered with Disability Services and a separate request must be made for each class in which accommodations are needed. Call extension 2667 for an appointment with the Director of Disability Services.

Special Needs: Students with special needs will be accommodated by the modification of certain tests according to the recommendations of the American College of Sports Medicine. The Human Performance Laboratory is handicap accessible. Abilene Christian University complies with all applicable federal and state non-discrimination laws and does not engage in prohibited discrimination on the basis of race, color, nationality or ethnic origin, gender, age, or disability, including qualified disabled veterans and qualified veterans of the Vietnam Era.

Course Policies:

Attendance: The lab will meet weekly and the student is responsible for ALL of the content during that time. Attendance will be taken each day. A student will not receive credit for the course if he/she has more than 4 absences for any reason. Unexcused absences in excess of 2

will result in a reduction of the final grade by 5% for each absence. Unexcused absences may not be made up for credit but must be made up for content missed. Excused absences resulting from participation in University events (i.e. field trips, athletic travel) provide the opportunity to make-up work missed. All absences that are excused must be made up in order for the student to receive credit for the activities of the lab missed.

Tardy Arrival - Arriving after the scheduled class time will be considered a tardy and two tardy arrivals to class will equal an absence.

UNIVERSITY SPONSORED ABSENCES: It is the student's responsibility to:

1. Arrange to take tests, turn in work etc. more than 48 hours PRIOR TO THE UNIVERSITY SPONSORED ABSENCE
2. CHECK before returning to class to determine if an in-class assignment was assigned during University sponsored absence

Attire and Professionalism: At all class meetings, attire should be comfortable, but in good taste and reflecting professional demeanor. Hats/caps, for males or females, are not to be worn during any quiz or other evaluation. **Statement of Faith:** God has wonderfully designed the human body and I stand in awe of just how perfect that design is. We are privileged to be able to measure some of the aspects of this God-designed body. With that in mind, we are always respectful and protective of our subject's privacy and dignity.

Academic Integrity: University Policy for Academic Integrity and Honesty

1. Academic Integrity is defined as academic work completed as assigned for each class by the individual or group responsible for the work. Academic work includes but is not limited to reading assignments, assessments and examinations, attendance at required out-of-class activities, written or oral presentations, laboratory experiments and research.
2. See Academic Integrity and Honesty Policy for details of what constitutes academic dishonesty and resultant disciplinary actions. www.acu.edu/campusoffices/provost

Penalties:

1. Student will receive a grade of zero for the assignment (1st offense)
2. Student will be reported to the department chair (1st offense)
3. Student will receive a grade of F for the course (2nd offense)
4. Student will be reported to the dean of the college (2nd offense)

Cell Phones, Calculators and other Electronic Devices:

1. Unless being utilized for academic purposes as instructed by the professor, to prevent disruption of classes, all cell phones must be turned to the OFF or vibrate (w/out sound) setting and put away during class time. No cell phone is to be answered inside the classroom or in close proximity to the classroom door – be courteous with usage just outside the class.

2. With the possibility that sensitive information can be accessed, students are not to leave their phones in sight during examinations. Likewise, students are cautioned that inappropriate use of a cell phone outside of the classroom shall be construed as cheating and result in associated penalties.

Tentative Course Schedule

The information below is provided to give students some guidance in the intended direction and content for the course. The Professor reserves the right to make changes to the course content, course schedule and/or grading policies as necessary to maximize student learning.

<u>Mid Term #1 Lecture Content</u>	
1st Meeting	Introduction and Terminology (Ch. 1); Units Measure (Ch. 2); Collection Basic Data (Ch. 3)
2nd Meeting	Auscultation; Resting (Ch. 16) and Exercise Blood Pressure (Ch. 17)
3rd Meeting	Resting (Ch. 18) and Exercise EKG (Ch. 19)
4th Meeting	Resting Lung Volumes (Ch. 20) and Exercise Ventilation (Ch. 21)
5th Meeting	Aerobic Running, Jogging and Walking (Ch. 15); Aerobic Stepping (Ch. 13); Aerobic Cycling (Ch. 14)
6th Meeting	Maximal Oxygen Consumption (Ch. 15)
7th Meeting	Continue Aerobic Tests (Ch. 12-15)
8th Meeting	Anaerobic Cycling (Ch. 9)
9th Meeting	Anaerobic Stepping (Ch. 13)
10th Meeting	Resting Metabolic Rate (Ch. 31); Bod Pod???; Nomograms?
11th Meeting	BMI (Ch. 23); Girth Measurements (Ch. 24)
12th Meeting	Skinfolds (Ch. 25); Bod Pod??
13th Meeting	Hydrostatic Weighing and Practice (Ch. 26)
14th Meeting	