

SYLLABUS

HK 361L Physiology of Exercise Laboratory

CATALOG DESCRIPTION: a laboratory class designed to complement the lectures in HK 361, Physiology of Exercise.

COREQUISITE: HK 361, Physiology of Exercise

TEXT: lab manual with course outline in the bookstore

PURPOSE OF THE COURSE: This laboratory class will provide practical experiences that involve the observation of basic physiological responses to exercise. Heart rate and blood pressure responses to various forms of exercise will be emphasized. Other physiological responses such as ventilation and blood lactate levels will also be observed. Ergometry will be presented and discussed throughout the laboratory class. This course also introduces the student to the basic skill of performing a health-related fitness assessment.

COURSE OBJECTIVES:

Upon completion of HK 361 L, Physiology of Exercise Laboratory, the student will:

1. demonstrate competency in use of the Monarch 818E cycle ergometer
2. demonstrate competency in the use of the Quinton 18-49-C treadmill
3. calculate work and power on various ergometers
4. accurately measure resting and exercise heart rate (HR)
5. accurately measure resting and exercise blood pressure (SBP and DBP)
7. discuss the effect of various forms of exercise on HR and blood pressure (BP)
8. properly place electrodes for the limb leads of the electrocardiogram (EKG)
9. accurately measure HR from a EKG rhythm strip
10. accurately measure static lung volumes with the Spirometrics SMI I spirometer
11. collect and analyze gases expired during rest and exercise
12. assess body composition by hydrostatic weighing and skinfold measurements
13. perform various measures of anaerobic power

14. assess muscular strength, endurance, and flexibility

COURSE OUTLINE

WEEK	LABORATORY ACTIVITY
Week 1	Introduction in Lecture, labs do not meet
Week 2	Ergometry, resting and exercise HR & BP
Week 3	Labs do not meet (Labor Day)
Week 4	Acute cardiovascular responses
Week 5	Acute pulmonary responses
Week 6	Skills Exam 1
Week 7	Body composition analysis
Week 8	Muscular strength, endurance, and flexibility
Week 9	Submaximal CR assessment
Week 10	Skills Exam 2
Week 11	Measurement of anaerobic power capacity
Week 12	Maximum oxygen consumption (VO _{2max})
Week 13	OBLA

Week 14	Exam 3 — Metabolic Calculations
Week 15	Labs do not meet (T'giving Holiday)
Week 16	Labs do not meet (done)

COURSE REQUIREMENTS

Students are expected to

1. attend and participate in all laboratory activities
2. complete all laboratory reports
3. successfully complete three laboratory skills exams

Requirement Descriptions

Attendance/participation - All laboratory meetings are mandatory. There is no way to make up a laboratory experience out of class. Additionally, essential laboratory skills are taught in the lab. It is also essential that all students are prepared to actively participate in the laboratory activities. **You should come prepared to exercise during every lab.**

Meeting. Each student begins the class with 100 attendance points. 20 points are deducted for every lab missed or not participated in. University or medically approved absences will be addressed individually.

Laboratory Reports - Each laboratory meeting will have an associated lab report based on the lab's activity. These reports will be due by the next scheduled lab meeting. The lab reports will typically involve explanation of the data and/or other information observed in the lab. There are nine laboratory reports worth 20 points each.

Laboratory Exams - These exams will include skills exams for the laboratory skills covered in class. Skills such as measuring HR, BP, skinfolds, and other health-related assessments are tested. Each skills exam is worth 50 points

Final Grade

Attendance	-100 pts.
Lab. Report	-180 pts.
Lab. Exams	<u>-150 pts.</u>
TOTAL	- 420 pts,

Note: Grades for Laboratory and Lecture are completely separate.

Grade Assignment

A	90 - 100%	D	60 - 69%	I	Incomplete
B	80 - 89%	F	< 60%	W	Withdraw
C	70 - 79%	WF	Withdraw Failing	WP	Withdraw Passing

**IT IS THE RESPONSIBILITY OF STUDENTS WHO HAVE PROFESSIONALLY
DIAGNOSED DISABILITIES TO NOTIFY THE INSTRUCTOR SO THAT
NECESSARY AND APPROPRIATE MODIFICATIONS CAN BE MADE TO MEET
ANY SPECIAL LEARNING NEEDS.**