

Programs. Human Kinetics (2nd Edition).

Description:

An introduction to the scientific principles and procedures involved in the assessment of physical fitness and exercise prescription. Primary topics include: cardiorespiratory endurance, muscular fitness, body weight and composition, flexibility, and precardiovascular training screening.

Evaluation:

	Points	% of Final Grade
Practical Lab Exams (5) 16 pts. each	80	12
Written Exam #1	100	15
Written Exam #2	100	15
Written Exam #3	100	15
Written Final Exam (Cumulative)	190	29
Quizzes (8) 7 count @ 10 pts. each	70	11
Course Evaluation	10	03
Total	650	100

Grade/Points: A= 619-650 A- = 585-618 B+ = 564-584 B= 543-563 B- = 520-542
C+ = 488-519 C = 455-487 D = 390-455 F = <390

Missed Quiz and Exam Policies:

You have one quiz grade which will be dropped from your total points calculation. If all eight quizzes are taken, the lowest score will be dropped. If any quizzes are missed, that score (zero) will of course be dropped. The first quiz missed will be the dropped grade. If this is an **excused absence**, it **must be documented**, then the next quiz missed due to an emergency which has been justified in writing and verified by documentation can be made up at a later date. All **missed exams** due to an unavoidable situation or emergency must **be justified in writing and documented**, or a zero will be recorded for the missed exam.

Attendance:

It is the students responsibility to attend class and obtain all information and material supplied by the instructor during the lecture sessions. No points will be debuted from the final grade for missed lecture sessions. However consideration in the form of additional points in the final grade will be given to students who attend all class sessions and show interest in the material being presented.

Lab Policy & Procedures:

Attendance during the laboratory sessions is required and five (5) points will be deducted from the final laboratory grade for each missed laboratory session.

Lab Data Sheets must be handed in one (1) week after the completion of the individual lab experience. Two (2) points will be subtracted from the final lab grade for each week it is late.

Test-out Sessions can be repeated as many time as desired to obtain the maximum points of 16 for each of the five (5) practical exam test-out sessions with the following restrictions:

1. Re-testing is not possible during the last week of class. The practical exam score you receive at that time is your final grade.
2. The first attempt at a test-out **MUST** BE COMPLETED WITHIN TWO (2) WEEKS OF COMPLETING THE CORRESPONDING LAB EXPERIENCE. The sign-up sheet for these test-out sessions will be posted on the door outside 101D.
3. For each week that the first attempt at test-out is not completed four (4) points will be subtracted from the total points possible.

NOTE:

This course syllabus is a general plan for the course, deviations announced to the class by the instructor may be necessary.

Course Objectives:

- _____ Explain the procedures and necessity for pre-participation screening prior to starting an exercise program
- _____ Understand the importance and criteria for increased risk of injury or sudden death during exercise especially as they relate to the ACSM Guidelines.
- _____ Demonstrate the procedures in obtaining resting data prior to exercise testing.
- _____ Demonstrate the ability to preform basic EKG interpretation on resting and exercise tracings
- _____ Demonstrate the ability to adequately perform all exercise and fitness testing procedures
- _____ Understand the principles of exercise training and how these effect physiological changes in terms of aerobic, anaerobic endurance, speed & power, flexibility and weight loss.
- _____ Understand the importance and how to design an adequate warm-up and cool-down component to an exercise program
- _____ Understand how the environment effect the training program and the individuals physiological response to the training program
- _____ Explain the concept of overtraining and how it can be detected.

Course Evaluation: The lecture portion of this course can be evaluated by going to www.uga.edu/course_evaluation/students.html starting on Monday, April 28 and going through Thursday, May 1, 2008. If completed by May 1, the ten points will be added to your final points total.

Lab Evaluation: The lab portion of this course will be evaluated during the last scheduled lecture period.

Honesty Policy:

Students in this course are expected to conform to the UGA Student Honor Code: “I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others.” Academic honesty means performing all academic work without plagiarism, cheating, lying, tampering, stealing, receiving unauthorized or illegitimate assistance from any other

person, or using any sources of information that is not common knowledge. Students who assist other students in academically dishonest acts are in violation of the policy. Consequences of academic dishonesty may vary from receiving a lower grade to expulsion from the University. Students have the responsibility for knowing the University's policy and procedures on academic dishonesty, which

are described in the publication, A Culture of Honesty. Copies of this publication can be obtained from the Office of the Vice President for Instruction or may be viewed at the following web site: Guidelines

<http://www.uga.edu/ovpi/honesty/acadhon.htm>

KINS 4640
Scientific Principles of Conditioning and Fitness
SPRING SEMESTER 2008

<u>Day/Date</u>	<u>Topic</u>	<u>Readings</u>
Mon., 1/7	Introduction & class procedures	
Tues./Thurs. 1/8 & 10	LAB SESSION #1 Resting Blood Pressure, LM: Section III A Pulse Rate & EKG Measurements	AF: Ch. 2, pg. 23 - 34 EKG: Ch. 4
Weds., 1/9	Pre-Conditioning & Medical Screening Health, Fitness, Conditioning & Athletic Performance; Pre-conditioning and	AF: Ch. 1 LM: Section IV Part A Screening
Fri., 1/11	Risk Factor Analysis & ACSM Guidelines	AF: Ch 2, pg. 18 - 23 Appendix A, pg. 277-293
<hr/>		
Mon., 1/14	Quiz #1; Basic Electrocardiography (EKG)	AF: Ch. 1 & 2, pg. 29-33
Tues./Thurs. 1/15 & 17	LAB SESSION #2 Resting Data Collecting Procedures Continued	AF: Appendix A, pg. 294 - 302 EKG: CH 4
Weds., 1/16	Basic EKG (Cont)	
Fri., 1/18	EKG Axis and rotation	EKG: CH 7 <u>LM:Section IV B</u>
<hr/>		
Mon., 1/21	MLK Day - No Class	
Tues./Thurs. 1/22 & 24	LAB SESSION #3 Graded Exercise Test (GXT) and EKG Recording Demonstration	AF: Ch. 4
Weds., 1/23	EKG Interpretation (Cont.)	EKG: CH 5
Fri., 1/25	EKG Interpretation (Cont.)	EKG: CH 5
<hr/>		
Mon., 1/28	Quiz 2; EKG Interpretation (Cont.)	EKG: CH 6
Tues./Thurs.	LAB SESSION #4 EKG Computer	LM: Section IV, Part B

1/29 & 1/31	Simulations and Interpretation	Tracings 1-20 EKG Ch 3
Weds., 1/30	EKG Interpretation (Cont.)	EKG: CH 8
Fri., 2/1	EKG Interpretation (Cont.)	

<u>Day/Date</u>	<u>Topic</u>	<u>Readings</u>
Mon., 2/4	Quiz # 3; EKG Interpretation (Cont)	EKG: Ch 9
Tues./Thurs. 2/5 & 7	LAB SESSION #5 Maximal and Sub-maximal Aerobic Capacity Testing	LM: Section III Part B AF: Ch. 4, Appendix B
Weds., 2/6	EKG Interpretation (Cont)	LM: Section IV Part B
Fri., 2/8	EKG Interpretation (Cont)	

Mon., 2/11	EXAM # 1	
Tues./Thurs. 2/12 & 14	LAB SESSION #6 Aerobic Capacity Testing Maximal & Sub-Max Testing	LM: Section III Part B AF: Ch. 4
Weds., 2/13	Physical Fitness Testing Principles	AF: Ch. 3, pg. 33-40 Appendix B 1-3
Fri., 2/15	The energy systems & training	LM: Section X pg. 1-4

Mon., 2/18	Aerobic Training Principles & Program Design	AF: Ch. 5
Tues./Thurs. 2/19 & 21	LAB SESSION #7 Aerobic Capacity Testing Maximal & Sub-Max Testing	LM: Section III Part B AF: Ch. 4
Weds., 2/20	Training Program Design	LM: Section IV F
Fri., 2/22	Using the ACSM Formula	LM: Section IV G, Calculation

Mon., 2/25	Quiz 4; Quantifying the Exercise Prescription	AF: Ch. 5, Appendix A, pg. 303 - 305
Tues./Thurs., 2/26 & 2/28	LAB SESSION #8 Muscular Strength and Endurance Testing	LM: Section III D AF: Ch. 6
Weds., 2/27	Problems in Exercise Prescription	

Fri., 2/29

Problems in Exercise Prescription (Cont.)

<u>Day/Date</u>	<u>Topic</u>	<u>Readings</u>
Mon., 3/3	Quiz # 5 Assessment of Muscular Strength And Endurance	AF: Ch. 6, Appendix C.1
Tues./Thurs., 3/4 & 6	LAB SESSION #9 Muscular Fitness Testing For Older Adults (Functional)	AF: Ch. 6, Pg. 133-137
Weds., 3/5	Principles of Resistance Training	AF: Ch. 7
Fri., 3/7	Principles of Resistance Training	AF: Ch. 7

MARCH 12 THROUGH MARCH 16 SPRING BREAK

Mon., 3/17	Quiz # 6 Resistance Training	AF: Appendix C LM: Section IV D
Tues./Thurs. 3/18 & 20	LAB SESSION #10 Body Composition Measurements	LM: Section III C AF: Ch. 8, Appendix D
Weds., 3/19	Resistance Training for Health and Fitness	LM: Section IV D Measuring Strength
Fri., 3/21	Resistance Training for Women, Children and Older Adults	AF: Ch. 7, pg. 152 - 158 LM: Section IV D

Mon., 3/24	EXAM # 2	
Tues./Thurs., 3/25 & 27	LAB SESSION #11 Body Composition (Cont.)	
Weds., 3/26	Speed and Power Development	LM: Section IV D
Fri., 3/28	Principles of Weight Control and Weight Loss	AF: Ch. 8 & 9

Mon., 3/31	Caloric restriction and weight loss	AF: Ch. 9
------------	-------------------------------------	-----------

Tues./Thurs., 4/1 & 3	LAB SESSION #12 Flexibility Measurements	LM: Section III E AF: Ch 10
Weds., 4/2	Weight Loss Principles	AF: Ch. 9 LM: Section IV I
Fri., 4/4	Exercise and weight loss	

<u>Day/Date</u>	<u>Topic</u>	<u>Readings</u>
Mon., 4/7	Quiz # 7 Weight Loss Programs	AF: Ch. 9 pg 231 - 243
Tues./Thurs., 4/8 & 10	LAB SESSION #13 Practice and Testing Sessions	LM: Section I
Weds., 4/9	Flexibility Principles	LM: Section IV J AF: Ch. 11
Fri., 4/11	Flexibility Development	AF: Ch. 11

Mon., 4/14	Quiz # 8 Contraindicated Exercises, Warm-Up and Cool-Down Principles	AF: Appendix F
Tues./Thurs., 4/15 & 17	LAB SESSION #14 Practice and Testing Sessions	LM: Section I
Weds., 4/16	Warm-up & cool-down (cont.)	
Fri., 4/18	Overtraining	LM: Section IV Part K

Mon., 4/21	EXAM #3	
Tues./Thurs., 4/22 & 24	LAB SESSION #15 Practice and Testing Sessions	LM: Section I
Weds., 4/23	Honors Day - No Class	
Fri., 4/25	Environmental Factors	

Mon., 4/28 Environmental Factors (Cont.)

FINAL EXAM
Friday, May 2nd from 3:30-6:30 PM

AF = Advanced Fitness Assessment and Exercise Prescription by Heyward

LM = Laboratory Manual/Reading Packet for EXRS 4640

EKG = Rapid Interpretation of EKG's by Dubin