

COURSE IMPLEMENTATION DATE: (January 2002)
COURSE REVISED IMPLEMENTATION DATE: {
COURSE TO BE REVIEWED: CAN 2006)
(Four years after implementation date)

OFFICAL COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.

FACULTY/DEPARTMENT: KINESIOLOGY AND PHYSICAL EDUCATION KPE 363 COURSE NAME/NUMBER FORMER COURSE NAMBER LAB-BASED EXERCISE PHYSIOLOGY COURSE DESCRIPTION: This is a lob-based course dealing with laboratory-based measurement of the functional apacity of the various physiological systems, including the muscular, cardiovascular, respiratory, and nervous systems. PREREQUISITES: SPROSTORY AND PHYSICAL EDUCATION COURSE PASSION AND PHYSICAL EDUCATION COURSE PHYSIOLOGY COURSE PHYSI		ect to change at the discretion of the dep see course syllabus available from instru			
COURSE NAME/NUMBER LAB-BASED EXERCISE PHYSIOLOGY COURSE DESCRIPTION: This is a lab-based course dealing with laboratory-based measurement of the functional apacity of the various physiological systems, including the muscular, cardiovascular, respiratory, and nervous systems. PREREQUISITES: XPE 302 COREQUISITES: XPE 302 COREQUISITES: (Course #) (Course #) (Course #) (Course #) SERVICE COURSE TO S (Course #) (Course	tammininin esantementario esantement	Hilling the contains and a second than	ussanista arrassi nyantantaraha	'mpanesa ar	
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CALENDAE DESCRIPTION: This is a lab-based acourse dealing with loboratory-based measurement of the functional apacity of the various physiological systems, including the muscular, cardiovascular, respiratory, and nervous systems. PREREQUISITES: XPE 332 COREQUISITES: SYNONYMOUS COURSE(S) (G) Replaces: N/A (Course #) TRAINING DAY-BASED INSTRUCTION 45 LENGTH OF COURSE: N/A Leading PER DAY: N/A Locations Seminat: N/A Locations (B) N/A Locations (Course #) Location		LAB-BASED EXERCISE PHYSIOLO	DGY		
This is a lab-based course dealing with laboratory-based measurement of the functional apacity of the various physiological systems, including the muscular, cardiovascular, respiratory, and nervous systems. PREREQUISITES: EXPESSOR COREGUISITES: SYNONYMOUS COURSE(S) (c) Replaces: N/A (Course f) (Department / Program) (Department / Program) TOTAL HOURS PER TERM: TRAINING DAY-BASED INSTRUCTION 45 IRAINING DAY-BASED INSTRUCTION LENGTH OF COURSE: N/A IRAINING DAY-BASED INSTRUCTION AS PER DAY: N/A IRAINING DAY-BASED INSTRUCTION IR		COURSE DESCRIPTIVE TITLE			
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(c) Replaces: N/A (Course #) (b) Cannot take: N/A (Course #) (c) Cannot take: N/A (Course #) (c) Cannot take: N/A (Course #) (c) Cannot take: N/A (Course #) TOTAL HOURS PER TERM: TRAINING DAY-BASED INSTRUCTION STRUCTURE OF HOURS Leachures: N/A Lectures: N/A Length OF Course: N/A Length OF	COREQUISITES:				
(b) Cannot take: N/A for further credit N/A (Department / Program) TOTAL HOURS PER TERM: TRAINING DAY-BASED INSTRUCTION 45 STRUCTURE OF HOURS: Length of Course: N/A Lectures: hrs. Hours PER DAY: N/A Leboratory: 45 hrs. Hours PER DAY: N/A Laboratory: 45 hrs. Hours PER DAY: N/A Structure of Hours: N/A Lectures: N/	SYNONYMOUS COURSE(S)	SERVICE COURSE TO:			
TOTAL HOURS PER TERM: TRAINING DAY-BASED INSTRUCTION					
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STRUCTURE OF HOURS Lectures:		TRAINING DAY-BASED INSTRU	CTION		
Seminar: hrs. HOURS PER DAY: N/A Laboratory: 45 hrs. Field Experience: hrs. Student Directed Learning: hrs. Other (Specify): hrs. Other (Specify): hrs. Other (Specify): hrs. Other (Specify): hrs. No. X MAXIMUM ENROLMENT: 36 EXPECTED FREQUENCY OF COURSE OFFERING: Once/year WILL TRANSFER CREDIT BE REQUESTED?: (Lower-level courses only) YES NO X WILL TRANSFER CREDIT BE REQUESTED?: (Upper-level requested by department) YES X NO X UTHORIZATION SIGNATURES: Ourse designer(s): Chairbertin Dean: Chairperson: (Curriculum Committee) epartment Head: Dean: J. Salodgrass	STRUCTURE OF HOURS	LENGTH OF COURSE:	N/A		
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WILL-TRANSFER CREDIT BE REQUESTED?: (Lower-level courses only) WILL-TRANSFER CREDIT BE REQUESTED?: (Upper-level requested by department) YES X NO ITRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE. VES NO X UTHORIZATION SIGNATURES: Ourse designer(s): Chairperson: (Curriculum Committee) epartment Head: C. Chamberlin Dean: J. Saodgrass	MAXIMUM ENROLMENT: 36				
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C. Chamberlin J. Sandgrass	ourse designer(s):	<i>T</i> /	2 motora	~	
	C. Chamberlin	2125 to the Assessment Delta.	J. SAOdgrass		

COURSE NAME / NUN	MBER	
YEARNING OBJECTIVES / GOAI	S / OUTCOMES / LEADIN	NING OUTCOMES.
1	-	
/ Introduce students to dat		
		ion and electronic signals
		meaningful physiological variables
- be able to set up, calibra		
- be able to set up, calibra		
		nonary data, and understand the effects of exercise
		at rest and during exercise, understanding postural effects
- be able to set up, calibra	te, and collect gas	analysis data to determine maximal aerobic power
METHODS:		
- lecture		
PRIOR LEARNING ASSESSMENT	RECOGNITION (PLAR):	
Credit can be awarded for thi	is course through PLAR	YES NOX
METHODS: OF OBTAINING PLAR		
	19-11-11-1	
TEXTROOKS PEPERENCES MAT	eriais.	
(Textbook selection varies by i	nstructor. An example	e of texts for this course might be:)
- Course Pack		
SUPPLIES / MATERIALS:		
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NA		
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STUDENT EVALUATION		
(An example of student evalue		· · · · · · · · · · · · · · · · · · ·
a. 5 mini-lab reports	4% each	20%
b. 5 full lab reports	10% each	50%
c. Final exam		30%

KPE 363 CQURSE NAME / NUMBER

COURSE CONTENT:

1.	
	Biometrics Instrument range, sensitivity, linearity, hysteresis, frequency response
<u>D.</u>	signal-to-noise ratio
C.	basic electricity and safety measures computer data collection, signal input and A/D conversion
a.	computer data collection, signal input and A/D conversion
2.	Oscilloscopes and Stimulators (Nerve Conduction)
a.	oscilloscopes
b.	stimulators
c.	measuring action potential velocities
3.	EMG
	Electrodes
	Recording muscle potentials
	Scaling of data
d.	
	ECG
	Three vs 12 lead ECG's
b	R-R Interval frequency
	Major ECG signs
C.	IVIOJOI ECO SIGNS
	Pulmonary Volumes and Capacities
	Measuring static volumes
	Measuring dynamic volumes
С.	Scaling of data
6.	Pulmonary Function
	Pulmonary response to exercise
b.	Changes in dynamic measures
c.	Measuring flow
7.	Arterial Blood Pressure
	Measurement techniques
	Orthostatic effects
	Exercise effects
	Maximal Aerobic Power
	Metabolic equations
	Use of a metabolic cart
	i, Calibration
	, Theory
<u></u>	Differences VO2 values with different exercise modes
	Scaling of data