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Curriculum Proposal	Cover She	et - Unive	ersity-V	Vide Undergr	aduate	Curri	culum C	ommittee		
Contact Person					Ema	il Addre	ess			
Joshua Castle, Ph.D		j.l.castle@iup.edu								
Proposing Department/Un					Pho					
Health and Physical E		mplete inf	'aumati		7-6		-1	1.6		
Check all appropriate l course proposal and for	each progra	m proposa	l.	on as requested	i. Use	a separ	ate cove	r sneet for each		
1. Course Proposals (che New Course			Cours	e Deletion	ı					
Course Revision Course Number and/or Title Change							Catalog Description Change			
Current Course prefix, number and full title				Proposed course prefix, number and full title, if changing HPED 256 Applied Human Structure and Conditioning						
2. Additional Course De This course is also	proposed as	a Liberal S	Studies C	Course.			(e.g., Wo	men's Studies,		
This course is also	proposed as									
3. Program Proposals		Catalog Description Change Program Revision					Revision			
New Degree Prog	gram	Program Title Change Other								
New Minor Progr	ram	New	Track							
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Current program name				<u>Proposed</u> program	name, if	changing	, . – . – . – . _– .			
4. Approvals								Date		
Department Curriculum Co	ommittee	~	1	125				9-1742		
Chair(s)										
Department Chair(s)		Pars	Ba	<u>.</u>				9-17-12		
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College Curriculum Comn	nittee Chair	Sank	w	achte	-			10-10-12		
Co	ollege Dean	hary	6'.	Seelen	_		6	10/10/12		
Director of Libera	l Studies *	J						, ,		
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Additional signatures as ap	propriate:									
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Part II. Description of Curriculum Change

1 Syllabus of Record

I. Catalog Description

HPED 256 Applied Human Structure and Conditioning 3 class hours

0 lab hours 3 credits

Prerequisites: PSEP/Sport Administration Major (3c-0l-3cr)

Emphasis will be on developing an anatomical and physiological knowledge base as it applies to exercise, conditioning and training of the physically active. Specific body systems presented will include skeletal, muscular, cardio-respiratory and nervous. Components of each system will be addressed as they pertain to exercise and training concepts, such as speed, strength, muscular and cardiovascular endurance, flexibility, aerobic capacity, power, and other physiological factors related to performance and physical activity.

II. Course Outcomes

Upon completion of this course the student will be able to:

- A. Explain anatomical orientation as it applies to specific human structure, i.e., anatomical planes, positions, regions, and body systems.
- B. Define components of skeletal anatomy including boney landmarks, regions and divisions, as well as bone development, growth and biomechanical influence of joint movement.
- C. Classify specific anatomical articulations, i.e., fibrous, cartilaginous and synovial joint classifications.
- D. Explain specific muscle organs, and their primary structure and physiological function applied to development of strength, muscle endurance, and joint flexibility.
- E. Describe components of the nervous system, including cell properties, structure, regeneration and function, as they apply to principles of training for speed, strength, power, agility and proprioception.
- F. Classify specific structures of the cardio-respiratory system, including components of blood, vessels, cardiac muscle and respiratory organs, as well as physiological function of these structures related to aerobic and anaerobic development and training.

III. Course Outline

A.	Orientation to human anatomy and anatomical structures 1. Anatomical planes 2. Anatomical regions 3. Anatomical terminology 4. Introduction to body systems	2 hours
B.	Skeletal System 1. Skeletal anatomy 2. Identification of anatomical landmarks 3. Identification of specific bone features 4. Development, growth, remodeling & repair of bone tissue 5. Biomechanical influence of skeletal structure	5 hours
C.	Articulations 1. Fibrous, cartilaginous and synovial joint classifications 2. Biomechanics of joint motion	2 hours
D.	Nervous System 1. Cell properties, structure, regeneration and function 2. Gross anatomy central and peripheral nervous systems	2 hours
Exam	One	1 hour
E.	Muscular System 1. Tissue anatomy, metabolism, function and intervention 2. Gross anatomy, terminology and organization 3. Physiological basis of muscle contraction 4. Muscle action on joint motion and strength	5 hours
F.	Muscle Locations and Actions Laboratory	1 hour
G.	Cardio-Respiratory Systems 1. Blood proteins, cells, types, form and function 2. Vessel type and circulatory routes 3. Heart and cardiac muscle structure 4. Physiology of electrical and contractile activity 5. Respiratory mechanics, neural control, gas exchange	2 hours
Exam	Two	1 hour
H.	Principles of Training 1. Fundamental techniques 2. Individual response to training	3 hours

I.	Development of strength, endurance, and flexibility 1. Assessing muscular fitness 2. Developing muscular fitness	5 hours
J.	Performance Fitness 1. Neurological influence on training for speed & strength 2. Neurological influence on agility and joint flexibility	2 hours
K.	Muscular Fitness Laboratory	1 hour
L.	Exam Three	1 hour
M.	Aerobic and Anaerobic Training 1. Assessing energy fitness 2. Developing energy fitness	4 hours
N.	Developing Training Programs 1. Principles of progression 2. Principles of specificity 3. Principles of periodization	1 hour
О.	Athletic Performance & Environmental Conditions 1. Influence of temperature on performance 2. Influence of mineral and water replacement	2 hours
P.	Anaerobic and Aerobic Fitness Laboratory	2 hour
Final I	Exam	2 hours

IV. Evaluation Methods

The final grade will be determined as follows:

- 1. 50% Exams: Four objective examinations (12.5% for each exam) with three during the semester and a fourth during final exam week.
- 2. 15% Sport Specific Training Plan: Students will research and develop a conditioning plan for a specific sport to improve the strength, flexibility, and aerobic conditioning for a specific athlete participating in that sport.
- 3. 15% Quizzes: Ten quizzes will be completed throughout the semester.
- 4. 20% Laboratory Activities: Students will participate in strategic lab activities and prepare reports of the lab activities.

V. Grading Scale

 $A: \ge 90\%$; B: 80 – 89%; C: 70 – 79%; D: 60 – 69%; F: <60%

VI. Attendance Policy

The course attendance policy will be consistent with the university undergraduate attendance policy included in the Undergraduate Catalog.

VII. Required Textbook

Sharkey, B. J. & Gaskill, S.E. (2006). Sport Physiology for Coaches. Champaign, IL: Human Kinetics Publishing.

VIII. Special Resource Requirement

Instructor prepared course packet.

IX. Bibliography

- Abernethy, B., Hanrahan, S., Kippers, V., Mackinnon, L. & Pandy, M. (2005). The Biophysical Foundations of Human Movement. Champaign, IL: Human Kinetics.
- Floyd, R. & Tompson, C. (2003). Manual of structural kinesiology. 15th Ed. New York, McGraw Hill.
- Gambetta, V. (2007). Athletic Development: The Art & Science of Functional Sports Conditioning. Champaign, IL: Human Kinetics.
- Hamil, J. & Knutzen, K. (2003). *Biomechanical basis for human movement*. 2nd Ed. Philadelphia, PA. Lippincott, Williams & Wilkins.
- Kenney, W., Wilmore, J., & Costill, D. (2011). *Physiology of sport and exercise*. 5th Ed. Champaign, IL. Human Kinetics.
- Marieb, E. (2009). Essentials of Human Anatomy and Physiology. San Francisco, CA: Pearson Publishing
- Martini, F. (2003). Fundamentals of anatomy and physiology. 6th Ed. San Francisco, CA: Benjamin & Cummins.
- McConnell, T. & Hull, K. (2011). *Human Form and Human Function*. Baltimore, MD: Lippincott Williams & Wilkins.
- Moore, K. (2004). Clinically oriented anatomy. 4th Ed. Baltimore, MD. Williams & Wilkins.
- Powers, S & Howley, E. (2003). Exercise physiology: Theory and application to fitness and performance. 5th Ed. New York. McGraw Hill.

- Shier, D., Butler. J. & Lewis, R. (2009). Hole's Essentials of Human Anatomy and Physiology. New York, NY: McGraw-Hill Publishing.
- Watkins, J. (2010). Structure and Function of the Musculoskeletal System. Champaign, IL: Human Kinetics.

New Catalog Description

HPED 256 Applied Human Structure and Conditioning 3c-01-3cr

Prerequisites: PSEP/Sport Administration Major

Emphasis will be on developing an anatomical and physiological knowledge base as it applies to exercise, conditioning and training of the physically active. Specific body systems presented will include skeletal, muscular, cardio-respiratory and nervous. Components of each system will be addressed as they pertain to exercise and training concepts, such as speed, strength, muscular and cardiovascular endurance, flexibility, aerobic capacity, power, and other physiological factors related to performance and physical activity.

2. Course Analysis Questionnaire

Section A: Details of the Course

Al How does this course fit into the programs of the department? For what students is the course designed? (majors, students in other majors, liberal studies). Explain why this content cannot be incorporated into an existing course.

This course will serve as a required course for students enrolled in the Sport Administration program. Students will use this course to gain a base of knowledge related to accreditation competencies as well as prepare them for more advanced courses in their field of study.

A2 Does this course require changes in the content of existing courses or requirements for a program? If catalog descriptions of other courses or department programs must be changed as a result of the adoption of this course, please submit as separate proposals all other changes in courses and/or program requirements.

No, the new course is more appropriate to match accreditation guidelines.

A3 Has this course ever been offered at IUP on a trial basis (e.g. as a special topic) If so, explain the details of the offering (semester/year and number of students).

This course has been offered as a HPED 481 course in the fall of 2011 and spring of 2012 with 45 students in each section.

A4 Is this course to be a dual-level course? If so, please note that the graduate approval occurs after the undergraduate.

This course is not intended to be dual level.

A5 If this course may be taken for variable credit, what criteria will be used to relate the credits to the learning experience of each student? Who will make this determination and by what procedures?

This course is not to be taken for variable credit.

A6 Do other higher education institutions currently offer this course? If so, please list examples (institution, course title).

Similar courses are offered at the following institutions, among others: Lock Haven University: HPED 260, Principles and Practices of Conditioning Edinboro University: HPE 301, Applied Human Anatomy and Physiology for HPE Edinboro University: HPE 222, Principles of Fitness Instruction

A7 Is the content, or are the skills, of the proposed course recommended or required by a professional society, accrediting authority, law or other external agency? If so, please provide documentation.

No, however content presented in this course will support other changes to the Sport

Administration Program of study that are required to meet the requirements of accreditation by the Commission on Sport Management Accreditation (COSMA).

Section B: Interdisciplinary Implications

B1 Will this course be taught by instructors from more than one department? If so, explain the teaching plan, its rationale, and how the team will adhere to the syllabus of record.

This course will be taught by one instructor from the Department of Health and Physical Education.

B2 What is the relationship between the content of this course and the content of courses offered by other departments? Summarize your discussions (with other departments) concerning the proposed changes and indicate how any conflicts have been resolved. Please attach relevant memoranda from these departments that clarify their attitudes toward the proposed change(s).

This course does not overlap with others at the university. This course is specific to sport administration majors.

B3 Will this course be cross-listed with other departments? If so, please summarize the department representatives' discussions concerning the course and indicate how consistency will be maintained across departments.

This course is not cross-listed.

Section C: Implementation

C1 Are faculty resources adequate? If you are not requesting or have not been authorized to hire additional faculty, demonstrate how this course will fit into the schedule(s) of current faculty. What will be taught less frequently or in fewer sections to make this possible? Please specify how preparation and equated workload will be assigned for this course.

No new faculty member will be required to teach this course. This 3 credit course will replace HPED 221 and HPED 343 in the curriculum (6 credits). This course will produce a reduction in the course load within the department. Fewer sections of HPED 221 and HPED 343 will need to be offered.

- C2 What other resources will be needed to teach this course and how adequate are the current resources? If not adequate, what plans exist for achieving adequacy? Reply in terms of the following:
 - Space Current classroom space is adequate for this course.
 - Equipment No additional equipment is required to teach the course.
 - Laboratory Supplies and other Consumable Goods None needed.
 - Library Materials Current library holdings are adequate.
 - Travel Funds No travel funds required.
- C3 Are any of the resources for this course funded by a grant? If so, what provisions have been made to continue support for this course once the grant has expired? (Attach letters of support from Dean, Provost, etc.)

No grant funds are required for this course.

C4 How frequently do you expect this course to be offered? Is this course particularly designed for or restricted to certain seasonal semesters?

The course will be offered once each year during the fall semester. Spring and summer offering may occur should student need warrant additional sections.

C5 How many sections of this course do you anticipate offering in any single semester?

One section of the course will be offered each fall semester.

C6 How many students do you plan to accommodate in a section of this course? What is the justification for this planned number of students?

Each section of this class will accommodate 45 to 55 students. This number should be sufficient to reach the students currently enrolled in this course of study. However, as mentioned above, additional sections may be offered should need present itself.

C7 Does any professional society recommend enrollment limits or parameters for a course of this nature? If they do, please quote from the appropriate documents.

No

C8 If this course is a distance education course, see the Implementation of Distance Education Agreement and the Undergraduate Distance Education Review Form in Appendix D and respond to the questions listed.

This course does not entail distance education.

Section D: Miscellaneous

Include any additional information valuable to those reviewing this new course proposal.

None.

Part III. Letters of Support or Acknowledgement.

None necessary