

Eastern Illinois University
New/Revised Course Proposal Format
(Approved by CAA on 4/3/14 and CGS on 4/15/14, Effective Fall 2014)

Banner/Catalog Information (Coversheet)

1. ☐ New Course or ☒ Revision of Existing Course
2. Course prefix and number: KSS 5225
3. Short title: Physical Activity and Aging
4. Long title: Physical Activity and Aging
5. Hours per week: 3 Class 0 Lab 3 Credit
6. Terms: ☐ Fall ☐ Spring ☐ Summer ☒ On demand
7. Initial term: ☐ Fall ☒ Spring ☐ Summer Year: 2016
8. **Catalog course description:** This course includes information on theories of physical aging, functional changes in humans with aging, and effects of both short term and chronic physical activity upon aging systems. Indications and contraindications of activity for older persons are discussed.
9. **Course attributes:**

General education component: N/A

☐ Cultural diversity ☐ Honors ☐ Writing centered ☐ Writing intensive ☐ Writing active

10. Instructional delivery

Type of Course:

☒ Lecture ☐ Lab ☐ Lecture/lab combined ☐ Independent study/research
☐ Internship ☐ Performance ☐ Practicum/clinical ☐ Other, specify: _____

Mode(s) of Delivery:

☒ Face to Face ☒ Online ☐ Study Abroad
☐ Hybrid, specify approximate amount of on-line and face-to-face instruction _____

11. Course(s) to be deleted from the catalog once this course is approved. N/A

12. Equivalent course(s): None

a. Are students allowed to take equivalent course(s) for credit? ☐ Yes ☐ No

13. Prerequisite(s): N/A

a. Can prerequisite be taken concurrently? ☐ Yes ☐ No

b. Minimum grade required for the prerequisite course(s)? _____

c. Use Banner coding to enforce prerequisite course(s)? ☐ Yes ☐ No

d. Who may waive prerequisite(s)?

☐ No one ☐ Chair ☐ Instructor ☐ Advisor ☐ Other (specify)

14. Co-requisite(s): None

15. Enrollment restrictions

a. Degrees, colleges, majors, levels, classes which may take the course: Restricted to Graduate KSS students enrolled in the Exercise Science Concentration and Graduate students enrolled in the Gerontology/Aging Studies Master's program

b. Degrees, colleges, majors, levels, classes which may not take the course: All Non-KSS-Exercise Science and Gerontology/Aging Studies graduate students

16. Repeat status: X May not be repeated ☐ May be repeated once with credit

17. Enter the limit, if any, on hours which may be applied to a major or minor: N/A

18. Grading methods: X Standard ☐ CR/NC ☐ Audit ☐ ABC/NC

19. Special grading provisions:

☐ Grade for course will not count in a student's grade point average.

☐ Grade for course will not count in hours toward graduation.

☐ Grade for course will be removed from GPA if student already has credit for or is registered in:

☐ Credit hours for course will be removed from student's hours toward graduation if student already has credit for or is registered in: _____

20. Additional costs to students:

Supplemental Materials or Software None

Course Fee X No ☐ Yes, Explain if yes _____

21. Community college transfer:

☐ A community college course may be judged equivalent.

X A community college may not be judged equivalent.

Note: Upper division credit (3000+) will not be granted for a community college course, even if the content is judged to be equivalent.

Rationale, Justifications, and Assurances (Part I)

1. X Course is required for the major(s) of KSS Graduate Exercise Science Concentration
AND MS Program in Gerontology

___ Course is required for the minor(s) of _____

___ Course is required for the certificate program(s) of _____

___ Course is used as an elective

2. **Rationale for proposal:** The proportion of the U.S. population that is over the age of 65 years is expected to increase dramatically over the next 30 years. It is projected that 20% of the individuals in the U.S. will be over the age of 65 years by 2030 (U.S Census Bureau's national population projections). Given this shift in demographic toward older adults in the coming years, it becomes increasingly important to ensure that exercise science students have a sound understanding of the aging process and the effects that these changes will have on physiologic function and the ability to maintain physical activity. In addition, it is essential that students also understand how physical activity and regular exercise impacts the process of aging both for application in the development of programs to reduce health risk and functional decline as well as for the implementation of programs of rehabilitation to return physical function to those who suffer from disease and dysfunction.

3. **Justifications for (answer N/A if not applicable)**

Similarity to other courses: N/A

Prerequisites: N/A

Co-requisites: N/A

Enrollment restrictions: The understanding of the aging process as it affects human physical activity and the manner in which physical activity interacts with aging are specific to those who expect to work with an elderly population with a goal of increasing or restoring the ability to engage in physical activity. This is an outcome specific to the KSS Exercise Science concentration and the field of Gerontology/Aging Studies.

Writing active, intensive, centered: N/A

4. **General education assurances (answer N/A if not applicable)**

General education component: N/A

Curriculum: N/A

Instruction: N/A

Assessment: N/A

5. **Online/Hybrid delivery justification & assurances (answer N/A if not applicable)**

Online or hybrid delivery justification: The primary justification for online delivery is to satisfy the requirement for this course as part of the Gerontology/Aging Studies Master's program. This program is transitioning to an exclusively on-line format so that this course will be required to be offered in this format. Many potential gerontology students are currently working in the profession in a full time capacity and would otherwise be unable to pursue advanced education in their profession. The online availability of the Gerontology/Aging Studies program will better meet the needs and offer flexibility of schedule for these student-professionals. In addition, having the availability of an online section of this course may be beneficial to KSS Exercise Science students who may also be

working professionals or who need this option to complete the course when their schedule requires an alternative to the current offering in the Spring semester only. The material for this course could be transferred to an online format, to accommodate the need for both Gerontology/Aging Studies and KSS students. At present, an online learning management system is used extensively in the delivery of the face-to-face course offering.

Instruction: The EIU approved online learning management system will be used to provide a sound virtual learning environment for the delivery and administration of the online section of this course. Quizzes and exams will be completed and graded online. Assignments will be delivered through the online learning management system and graded electronically. Participation in online discussion will be conducted, monitored and graded through the course management system's discussion forum. 'Gradebook' tools will be used to show student progress and for grade finalization and confidential grade posting. Online sections of the course will be taught by individuals who have successfully completed the OCDI training or who have met the other requirements of the technology-delivered course policy.

Integrity: The course syllabus will contain a statement on academic integrity and honesty with a link to the university policy. Quiz and exam items will be delivered randomly from a selected pool of questions to prevent any two students from having the exact same sequence of questions. Question views and available quiz/exam attempts (1) will be limited as will the amount of time available to complete the quiz or exam. Short answer or essay type questions will require critical analysis and application that will discourage plagiarism. Writing assignments will be submitted to EIU approved plagiarism detection software (e.g. Turnitin) to aid in the assurance of original authorship of writing samples.

Interaction: The instructor and students will be able to communicate with each other through online chat, discussion, and pager options along with email available through the an asynchronous online learning management system as well as the EIU email system.

Model Syllabus (Part II)

Please include the following information:

1. Course number and title: KSS 5225 Physical Activity and Aging
2. Catalog description: This course includes information on theories of physical aging, functional changes in humans with aging, and effects of both short term and chronic physical activity upon aging systems. Indications and contraindications of activity for older persons are discussed.
3. Learning objectives: Upon successful completion of this course, students will be able to ...
 - a. Comprehend, identify and critically analyze current theories related to factors contributing to physical aging in humans. (*Depth of content knowledge, critical thinking and problem solving skills, evidence of advanced scholarship through research and/or creative activity*)
 - b. Comprehend, identify, synthesize and critically analyze the physiologic changes that occur with normal human aging in bodily systems. (*Depth of content knowledge, critical thinking and problem solving skills, evidence of advanced scholarship through research and/or creative activity*)
 - c. Comprehend, identify, synthesize and critically analyze the effects that human aging has on physical activity and performance. (*Depth of content knowledge, critical thinking and problem solving skills, effective oral and written communication skills, evidence of advanced scholarship through research and/or creative activity*)
 - d. Comprehend, identify, synthesize and critically analyze the effects that physical activity and exercise may have on the development and progression of aging changes. (*Depth of content knowledge, effective oral and written communication skills, critical thinking and problem solving skills, evidence of advanced scholarship through research and/or creative activity*)
 - e. Apply knowledge of the physiology of exercise and aging to determine indications and contraindications for physical activity and exercise in older individuals with and without anatomical, physiologic and/or pathologic dysfunction. (*Depth of content knowledge, critical thinking and problem solving skills, evidence of advanced scholarship through research and/or creative activity*)
 - f. Apply knowledge of the physiology of exercise and aging to aid in the determination and evaluation of appropriate exercise and physical activity programming for the older individual. (*Depth of content knowledge, critical thinking and problem solving skills, evidence of advanced scholarship through research and/or creative activity*)
 - g. Select, administer and interpret assessments of physical, psychological, social and emotional health factors that impact the ability of an elderly individual to participate in physical activity safely and effectively. (*Depth of content knowledge, critical thinking and problem solving skills, Effective oral and written communication skills, evidence of advanced scholarship through research and/or creative activity*)
4. Course materials. Taylor, A.W. & Johnson, M.J. (2008 or current edition). ***Physiology of Exercise and Healthy Aging***. Human Kinetics: Champaign, Illinois.

5. Weekly outline of content.

Outline and Schedule:

	Topic	Face-to-Face	Online	Objectives
Week 1	Introduction to General Characteristics of Aging. Theories of Aging.	150 minutes Lecture Readings Assignment	150 minutes Online Lecture Readings Assignment	Objective a
Week 2	Changes in Cardiovascular Structure & Function with Aging	150 minutes Lecture Readings Assignments	150 minutes Online Lecture Readings Assignments	Objectives b,c,d
Week 3	Changes in Cardiovascular Structure & Function with Aging cont... Consequence of cardiovascular changes with aging relating to health and physical activity	150 minutes Lecture Readings Oral Research-Article Summary Quiz	150 minutes Online Lecture Readings Videos/Animations Discussion Board Online Quiz	Objectives b,c,d
Week 4	Changes in Pulmonary Structure & Function with Aging Consequence of pulmonary changes with aging relating to health and physical activity	150 minutes Lecture Readings Oral Research-Article Summary	150 minutes Online Lecture Readings Videos/Animations Assignments	Objectives b,c,d
Week 5	Neuromuscular Changes in structure & function with Aging. Sarcopenia, Frailty, Gait, Balance, Falls & Muscular Function	150 minutes Lecture Readings Oral Research-Article Summary Assignment	150 minutes Online Lecture Readings Videos/Animations Assignment	Objectives b,c,d

Week 6	<p>Neuromuscular Changes in structure & function with Aging cont...</p> <p>Consequence of neuromuscular changes with aging relating to health and physical activity</p>	<p>150 minutes</p> <p>Lecture</p> <p>Readings</p> <p>Oral Research-Article Summary</p> <p>Quiz</p>	<p>150 minutes</p> <p>Online Lecture</p> <p>Readings</p> <p>Videos/Animations</p> <p>Assignments</p> <p>Discussion Board</p> <p>Online Quiz</p>	Objectives b,c,d
Week 7	<p>Consequence of nervous system changes with aging relating to health and physical activity</p>	<p>150 minutes</p> <p>Lecture</p> <p>Readings</p> <p>Oral Research-Article Summary</p> <p>Assignment</p>	<p>150 minutes</p> <p>Online Lecture</p> <p>Readings</p> <p>Videos/Animations</p> <p>Assignment</p>	Objectives b,c,d
Week 8	<p>Changes in body composition with aging and the impact on health and physical activity</p> <p>Assessment of body composition in the elderly</p>	<p>150 minutes</p> <p>Lecture</p> <p>Readings</p> <p>Oral Research-Article Summary</p> <p>Quiz</p>	<p>150 minutes</p> <p>Online Lecture</p> <p>Readings</p> <p>Assignments</p> <p>Online Quiz</p>	Objectives b,c,d
Week 9	<p>Assessment of body composition in the elderly</p>	<p>150 minutes</p> <p>Lecture</p> <p>Readings</p> <p>Oral Research-Article Summary</p>	<p>150 minutes</p> <p>Online Lecture</p> <p>Readings</p> <p>Assignment</p>	Objectives b,c,d
Week 10	<p>Changes in the skeletal and articular system</p> <p>Structure & Function with Aging</p>	<p>150 minutes</p> <p>Lecture</p> <p>Readings</p> <p>Oral Research-Article Summary</p> <p>Quiz</p>	<p>150 minutes</p> <p>Online Lecture</p> <p>Readings</p> <p>Videos</p> <p>Assignment</p> <p>Online Quiz</p>	Objectives b,c,d
Week 11	<p>Changes in the skeletal and articular system</p> <p>Structure & Function with Aging cont...</p>	<p>150 minutes</p> <p>Lecture</p> <p>Readings</p> <p>Oral Research-Article Summary</p> <p>Quiz</p>	<p>150 minutes</p> <p>Online Lecture</p> <p>Readings</p> <p>Videos/Animations</p> <p>Assignments</p> <p>Online Quiz</p>	Objectives b,c,d

	Consequence of skeletal and articular system changes with aging relating to health and physical activity			
Week 12	Assessment of health, wellness, physical fitness, mobility, physical function and physical activity in the elderly	150 minutes Lecture Readings Oral Research-Article Summary Assignment	150 minutes Online Lecture Videos Assignments Discussion Board Self-Administration of Assessments	Objective g
Week 13	Physical Activity recommendations and guidelines for the elderly individual with and without impairment	150 minutes Lecture Readings Oral Research-Article Summary Quiz	150 minutes Online Lecture Videos Readings Online Quiz	Objectives e,f
Week 14	Exercise prescription and guidelines for activity programming for the elderly individual with and without impairment	150 minutes Lecture Readings Oral Research-Article Summary Assignment	150 minutes Online Lecture Readings Online Exercise and Activity Programming Assignment	Objectives e,f
Week 15	Research Project presentation	150 minutes Group oral presentations	150 minutes Online, published powerpoint presentations viewed asynchronously by all students. Administer an online quiz over this material.	Objectives a,b,c,d,e,f
Week 16	Final Project	Submission of a report of results from an assessment of an elderly individual with summary and interpretation of findings.	Submission of an online report of results from an assessment of an elderly individual with summary and interpretation of findings. Develop	Objectives e,f,g

		Develop recommendations for improving mobility, physical activity capabilities and safe and healthy aging.	recommendations for improving mobility, physical activity capabilities and safe and healthy aging.	
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6. Assignments and evaluation, including weights for final course grade.

Grade Components	Percent of Grade
Assignments that may include, but are not limited to reading summaries and reflection, research synthesis, case studies and practice assessments and programming exercises, etc.	20%
Group research presentation	25%
Comprehensive assessment of the elderly project	25%
Quizzes	30%

7. Grading Scale

- A ≥ 90% of total points.
- B 80-89% of total points.
- C 70-79% of total points.
- D 60-69% of total points.
- F < 60% of total points.

8. Correlation of learning objectives to assignments and evaluations

Objective	Quizzes	Assignments	Presentation	Assessment Project
a.	X	X		
b.	X	X	X	
c.	X	X	X	
d.	X	X	X	
e.	X	X	X	

f.	X	X	X	
g.				X

Date approved by the department or school: 2/20/15

Date approved by the college curriculum committee: 2/23/15

Date approved by the Honors Council (*if this is an honors course*):

Date approved by CAA: CGS: