

Course Information

Date Submitted: 1/23/2013

Current Prefix and Number: PGY - Physiology and Biophysics , PGY 412G - PRIN OF HUMAN PGY LECT

Other Course:

Proposed Prefix and Number:

What type of change is being proposed?

Major – Add Distance Learning

Should this course be a UK Core Course? No

1. General Information

a. Submitted by the College of: College of Medicine

b. Department/Division: Physiology

c. Is there a change in 'ownership' of the course? No

If YES, what college/department will offer the course instead: Select...

e. Contact Person

Name: Ok-Kyong Park-Sarge

Email: okps@uky.edu

Phone: 323-6067

Responsible Faculty ID (if different from Contact)

Name:

Email:

Phone:

f. Requested Effective Date

Semester Following Approval: No OR Effective Semester: Summer 2013

2. Designation and Description of Proposed Course

a. Current Distance Learning (DL) Status: Please Add

b. Full Title: PRINCIPLES OF HUMAN PHYSIOLOGY LECTURES

Proposed Title: Principles of Human Physiology lectures

c. Current Transcript Title: PRIN OF HUMAN PGY LECT

Proposed Transcript Title:

d. Current Cross-listing: none

Proposed – ADD Cross-listing :

Proposed – REMOVE Cross-listing:

e. Current Meeting Patterns

LECTURE: 4

Proposed Meeting Patterns

LECTURE: 4

f. Current Grading System: ABC Letter Grade Scale

Proposed Grading System: PropGradingSys

g. Current number of credit hours: 4

Proposed number of credit hours: 4

h. Currently, is this course repeatable for additional credit? No

Proposed to be repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester? No

2i. Current Course Description for Bulletin: human physiology course emphasizing applied concepts

Proposed Course Description for Bulletin: The objective of this course is to provide the basic physiological mechanisms of human body function and physiological integration of the organ systems to maintain homeostasis. Students will be learning what the different organ systems do and how they do it. With this knowledge a student should be able to form a general understanding of how the body functions in health and disease. The general purpose of the lectures is to reinforce and expand upon the material presented in the text, with a focus on concepts and problem solving skills. Lectures will be further developed with reading assignments and discussion.

2j. Current Prerequisites, if any: Prereq: One year biology or PGY 206.

Proposed Prerequisites, if any: One year biology or PGY 206

2k. Current Supplementary Teaching Component:

Proposed Supplementary Teaching Component: No Change

3. Currently, is this course taught off campus? Yes

Proposed to be taught off campus? No

If YES, enter the off campus address:

4. Are significant changes in content/student learning outcomes of the course being proposed? No

If YES, explain and offer brief rationale:

5a. Are there other depts. and/or pgms that could be affected by the proposed change? No

If YES, identify the depts. and/or pgms:

5b. Will modifying this course result in a new requirement of ANY program? No

If YES, list the program(s) here:

6. Check box if changed to 400G or 500: No

Distance Learning Form

Instructor Name: Ok-Kyong Park-Sarge

Instructor Email: okps@uky.edu

Internet/Web-based: Yes

Interactive Video: No

Hybrid: No

1. How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations? We will provide for timely and appropriate interaction between students and faculty and among students using Blackboard discussion board, e-mail communication, adobe meeting software. The course syllabus for PGY 412G has been modified to accommodate the distance learning section and contains information on how to contact the instructor.

2. How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc. The course goals and content are the same as our other classroom-based sections. A DL student will get the exactly same lecture material with the same textbook, course goals, and assessment of student learning outcome, as compared to a classroom-based student. To ensure the highest production quality possible, the lecture delivery will be designed in consultation with Distance Learning Program staff.

3. How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc. The syllabus includes a whole section on academic integrity and the subject will also be addressed in the first lecture. All lecture material will be on Blackboard and thus only students with their username/password will be able to access the course. Proctored exams will be administered on-campus, off-campus, or on-line. It is our goal to accommodate those students who need a flexible schedule yet to ensure the integrity of student performance.

4. Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above? NO.

If yes, which percentage, and which program(s)? There are no programs that will be affected.

5. How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting? Students will have the same policy in accessing faculty. Any student with disabilities with a letter from the Disability Center will be ensured for appropriate accommodation.

6.How do course requirements ensure that students make appropriate use of learning resources? The students taking this DL course will use the same resources as other students in classroom-based section students: Blackboard and Library Access. All lecture material will be provided on Blackboard and students will be able to access to UK library services as any other students taking UK courses. Textbook is required for any student taking this course. If there are resources for students' learning, we will provide a link on Blackboard as well.

7.Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program. There is no component of laboratories, facilities, and equipment pertinent to this course, except a computer and internet access.

8.How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (<http://www.uky.edu/UKIT/>)? Students are directed to contact UK technology center for technical difficulties.

9.Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? YES

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology. The course will be delivered via services available through the DLP and ATL.

10.Does the syllabus contain all the required components? YES

11.I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name: Ok-Kyong Park-Sarge

SIGNATURE|JMETT2|Joanie Ett-Mims|Undergrad Council approval for ZCOURSE_CHANGE PGY 412G|20130626

SIGNATURE|ZNNIKO0|Roshan N Nikou|Graduate Council approval for ZCOURSE_CHANGE PGY 412G|20130111

SIGNATURE|JDLIND2|Jim D Lindsay|HCCC approval for ZCOURSE_CHANGE PGY 412G|20121128

SIGNATURE|JDLIND2|Jim D Lindsay|HCCC approval for ZCOURSE_CHANGE PGY 412G|20121121

SIGNATURE|LDEARING|Lana S Dearing|College approval for ZCOURSE_CHANGE PGY 412G|20121029

SIGNATURE|LDEARING|Lana S Dearing|Approval resent to college for ZCOURSE_CHANGE PGY 412G|20121128

SIGNATURE|MBREID2|Michael B Reid|Dept approval for ZCOURSE_CHANGE PGY 412G|20121006

Distance Learning Form

This form must accompany every submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL delivery. **All fields are required!**

Introduction/Definition: For the purposes of the Commission on Colleges Southern Association of Colleges and Schools accreditation review, *distance learning* is defined as a formal educational process in which the majority of the instruction (interaction between students and instructors and among students) in a course occurs when students and instructors are not in the same place. Instruction may be synchronous or asynchronous. A distance learning (DL) course may employ correspondence study, or audio, video, or computer technologies.

A number of specific requirements are listed for DL courses. **The *department* proposing the change in delivery method is responsible for ensuring that the requirements below are satisfied at the individual course level.** It is the responsibility of the instructor to have read and understood the university-level assurances regarding an equivalent experience for students utilizing DL (available at <http://www.uky.edu/Faculty/Senate/forms.htm>).

Course Number and Prefix: PGY 412G	Date: June 4, 2012
Instructor Name: Ok-Kyong Park-Sarge	Instructor Email: okps@uky.edu
Check the method below that best reflects how the majority of course of the course content will be delivered.	
Internet/Web-based <input checked="" type="checkbox"/>	Interactive Video <input type="checkbox"/>
<input type="checkbox"/>	Hybrid

<i>Curriculum and Instruction</i>	
1.	<p>How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?</p> <p>We will provide for timely and appropriate interaction between students and faculty and among students using blackboard discussion board, e-mail communication, adobe meeting software. The course syllabus for PGY412G has been modified to accommodate the distance learning section and contains information on how to contact the instructor (e-mail and phone number).</p>
2.	<p>How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc.</p> <p>The course goals and content are the same as our other classroom-based sections. A DL student will get the exactly same lecture material with the same textbook, course goals, and assessment of student learning outcome, as compare to a classroom-based student. To ensure the highest production quality possible, the lecture delivery will be designed in consultation with Distance Learning Program staff.</p>
3.	<p>How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.</p> <p>The syllabus includes a whole section on academic integrity and the subject will also be addressed in the first lecture. All lecture material will be on Blackboard and thus only students with their username/password will access this course. Proctored exams will be administered on-campus, off-campus, or on-line. It is our goal to accommodate those students who need a flexible schedule yet to ensure the integrity of student performance.</p>
4.	<p>Will offering this course via DL result in at least 25% or at least 50%* (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above?</p> <p>No</p>

Abbreviations: TASC = Teaching and Academic Support Center DL = distance learning DLP = Distance Learning Programs

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	<p>If yes, which percentage, and which program(s)?</p> <p>*As a general rule, if approval of a course for DL delivery results in 50% or more of a program being delivered through DL, the effective date of the course's DL delivery will be six months from the date of approval.</p>
5.	<p>How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?</p> <p>Students will have the same policy in accessing faculty. Any students with disabilities with a letter from Disability Center will be ensured for appropriate accommodation.</p>
<i>Library and Learning Resources</i>	
6.	<p>How do course requirements ensure that students make appropriate use of learning resources?</p> <p>The students taking this DL course will use the same resources as other students in classroom section students: Blackboard and Library Access. All lecture material will be provided on Blackboard and students will be able to access to UK library services as any other students taking UK courses. Textbook is required for any student taking this course. If there are resources for students' learning, we will provide a link on Blackboard as well.</p>
7.	<p>Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.</p> <p>There is no component of laboratories, facilities, and equipment pertinent to this course.</p>
<i>Student Services</i>	
8.	<p>How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (http://www.uky.edu/UKIT/)?</p> <p>Students are directed to contact UK technology center for technical difficulties.</p>
9.	<p>Will the course be delivered via services available through the Academic Technology Group (ATG) and Distance Learning Programs (DLP)?</p> <p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>If no, explain how students enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.</p>

Distance Learning Form

This form must accompany every submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL delivery. **All fields are required!**

10.	<p>Does the syllabus contain all the required components, below? <input checked="" type="checkbox"/> Yes</p> <ul style="list-style-type: none"> ✓ Instructor's <i>virtual</i> office hours, if any. ✓ The technological requirements for the course. ✓ Contact information for Information Technology Customer Service Center: <ul style="list-style-type: none"> ○ Web: http://www.uky.edu/UKIT/ ○ Phone: 859-218-HELP ✓ Web Address for Distance Learning Programs: http://www.uky.edu/DistanceLearning ✓ Procedure for resolving technical complaints. ✓ Preferred method for reaching instructor, e.g. email, phone, text message. ✓ Maximum timeframe for responding to student communications. ✓ Language pertaining academic accommodations: <ul style="list-style-type: none"> ○ "If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Resource Center. The Center will require current disability documentation. When accommodations are approved, the Center will provide me with a Letter of Accommodation which details the recommended accommodations. Contact the Disability Resource Center, Jake Karnes, Director at 859-257-2754 or jkarnes@email.uky.edu." ✓ Information on Distance Learning Library Services <ul style="list-style-type: none"> ○ Carla Cantagallo, DL Librarian ○ Web: http://libraries.uky.edu/DLLS ○ Phone: 859 257-0500, ext. 2171 ○ Email: carla@uky.edu ○ DL Interlibrary Loan Service: http://libraries.uky.edu/page.php?lweb_id=253
11.	<p>I, the instructor of record, have read and understood all of the university-level statements regarding DL.</p> <p>Instructor Name: <u>Ok-Kyong Park-Sarge</u> Instructor Signature: <u>Okkyong Park Sarge</u></p>

PGY412G-PRINCIPLES OF HUMAN PHYSIOLOGY

Online 4 credit-hour section

Faculty:

Course Director

Ok-Kyong Park-Sarge, Ph.D.	MN502A UKMC	323-6067	okps@uky.edu
Francisco Andrade, Ph.D.	MS581 UKMC	323-6576	paco.andrade@uky.edu
Brian Jackson, Ph.D.	MS 501 UKMC	257-8503	brian.jackson@uky.edu

Office Hours

The course director is available for consultation regarding the course itself or course grades as needed via e-mail. Students are encouraged to post questions and/or comments regarding the course material on the Discussion page on the course Blackboard. Students can directly send her/his questions to an instructor via e-mail as well. In all communication, students can expect a reply from the instructor within 48 hours. Prior to each exam, there will be a question-answer sessions hosted through Adobe Connect Meeting.

Blackboard

Students must have an access to Blackboard (<http://uky.edu/blackboard> or <http://myUK.uky.edu>) for lectures, class discussion board, reading assignments, study questions, grades, and other announcements. Since any communication with the class will be sent out through Blackboard, you must provide your active e-mail account to the registrar. For technical difficulties, students must contact UK Information Technology Customer Service Center (<http://www.uky.edu/UKIT>) (phone 218-4357 (218-HELP); email helpdesk@uky.edu) or Distance Learning Programs (<http://www.uky.edu/DistanceLearning>).

Course Description

Principles of Human Physiology Section 200 is a 4 credit online course designed for students of the health sciences and others who are interested in an in depth exposure to physiology but may take advantage of flexibility of schedule and independent learning. The objective of this course is to provide the basic physiological mechanisms of human body function and physiological integration of the organ systems to maintain homeostasis. The general purpose of the lectures is to reinforce and expand upon the material presented in the text rather than simply review textbook information. Lectures will often contain material not presented in the textbook. The emphasis is on basic principles with a focus on concepts, basic principles and problem solving skills. Students will be learning what the different organ systems do and how they do it. With this knowledge a student should be able to form a general understanding of how the body functions in health and disease.

Course Pre-requisite

Knowledge from a year of college-level biology or introductory physiology is required for this course. Instructors will assume that you have this pre-requisite knowledge. Instructors will NOT have time to cover basic concepts that are considered pre-requisite. Should you not have this type of knowledge, you would be responsible for reviewing materials that the instructors view as a part of the pre-requisite. For example, instructors will assume that you know the structure of a cell as well as the definition of molarity and osmolarity and that you can convert scientific units such as M to mM, μ M, and nM.

Student Learning Outcome

At the end of this course, a student will be able to:

- describe the anatomy and function of each of the body's organ systems (nervous, cardiovascular, renal, muscular, respiratory, and endocrine systems)
- understand the relationship between the body's organ systems in maintaining homeostasis in the human
- apply their knowledge to compare mechanisms leading to healthy vs. diseased states
- combine their knowledge and understanding to analyze clinical cases and draw conclusions on the causes and potential treatments for pathological conditions.

Required Materials

Textbook: Widmaier et al., Vander's Human Physiology: The Mechanisms of Body Function, 12th ed., McGraw-Hill., ISBN-10 (0077350014)/ISBN-13 (9780077350017). Reading assignments are given for each lecture and you are encouraged to read the assigned reading materials prior to each lecture. The 12th edition is the official course text but the 10th or 11th edition may be sufficient for your reading.

Technologies: For this distance-learning section, students must have computer access to Blackboard via Internet services. All lectures, quizzes, and discussion sessions will be delivered through the Internet. Students will be supported with UK's Technology Customer Service Center (<http://www.uky.edu/UKIT/>) for technical difficulties.

Library Services: For additional learning, students will utilize UK library services, including access to e-journals and databases (PubMed). For further questions regarding UK library services, students are encouraged to contact Ask-a-Librarian service (<http://libraries.uky.edu/>) or the Distance Learning Library Services (http://libraries.uky.edu/page.php?lweb_id=253) (Carla Cantagallo, DL Librarian, phone 859-257-0500, ext. 2171, carla@uky.edu).

Lectures and Lecture Notes: Lecture notes may not include all the information presented in class. Students are strongly recommended to follow the suggested course schedule shown below.

Grading

According to the rule that the UK Senate adopted in 2003, combined instruction of undergraduates and graduates in 400G and 500-level courses must be structured to ensure appropriate attention to both groups and a corresponding differentiation in expectations. Thus, **letter grades** for this course will be **differentially derived from the class distribution** of final grades according to the scale below.

<u>Undergraduate</u>	<u>Graduate</u>
A - 87.00 - 100.00%	90.00 - 100.00%
B - 77.00 - 86.99%	80.00 - 89.99%
C - 67.00 - 76.99%	70.00 - 79.99%
D - 57.00 - 66.99%	
E - 00.00-56.99%	00.00- 69.99%

Final Grade (100%) = Exams I, II, III, and IV (23.25% each, totaling 93%) + quizzes (7%).

Examinations (93%): There are 4 examinations including the final. The final exam will NOT be comprehensive. The multiple-choice format will be used for each 100-point exam. The distribution of points

on each exam will be proportional to the number of lectures given by the individual instructors in each exam section. Students will be required to take each of these exams with a proctor, on-campus, off-campus, or on-line. The exact location of on-campus exams will be announced on Blackboard.

Quizzes (7%): There will be 14 online quizzes (worth 5 points each) throughout the course: 70 points total (7% of the final grade).

Make-Up Exam Policy

In the rare instance when a student misses a quiz or an exam due to a documented illness or emergency for any legitimate reason, as determined by the University regulations, a make-up quiz or exam may be administered at the earliest convenient time. Make-up exams may consist of Essay or Oral questions. **No test or quiz grades will be dropped or omitted.** It is the responsibility of the student to contact the course director as soon as possible if a make-up exam is requested.

Grade Posting

All quiz and test scores will be posted on Blackboard as soon as the scores are available. **Students are responsible for reviewing their scores on Blackboard** within a reasonable period after a quiz or an exam, as instructors may not keep a stack of quizzes or exams for the entire semester. **Students should direct any questions about a score to the course director within 2 weeks of the respective grade posting.** Review requests regarding a quiz or exam score after 2 weeks of the respective grade posting may not be granted. In accordance with University procedures, all graded materials will be held for 1 semester after the end of the course.

Academic Integrity

Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

Class Behavior, Decorum and Civility

Students are expected to maintain a level of dignity and respect towards faculty, staff, and fellow students. Students are expected to value differences among all members of our academic community. Conversely, all students have the right to take reasoned exception and to voice opinions contrary to those offered by the instructor and/or other students according to University Senate Rules. Equally, a faculty member has the right -- and the responsibility -- to ensure that all academic discourse occurs in a context characterized by respect and civility. Acceptable decorum and civility does not include attacks of a personal nature or statements denigrating another on the basis of race, sex, religion, sexual orientation, age, national/regional origin.

Disabilities and medical conditions

If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Resource Center. The Center will require current disability documentation. When accommodations are approved, the Center will provide me with a Letter of Accommodation that details the recommended accommodations. Contact the Disability Resource Center (Jake. Karnes, Director, Room 2, Alumni Gym, (V/TDD) 257-2754; jkarbes@email.uky.edu).

Tentative Course Schedule

Lecture #	Lecture Title	Assigned Reading (pp)
1	Course Introduction/How to's	
2	Homeostasis/	1-19
3	Cell/Tissue	44-94
4	Molecular Movement via Cell Membrane	95-117
5	Communication and Signaling; quiz 1	118-134
6	Hormones, Receptors,	311-317
7	Cellular Responses	318-324
8	Energy Balance and Pancreatic Hormones	78-94, 554-568
9	Pancreatic hormones: Link to Diabetes and Obesity; quiz 2	582-598
10	The Hypothalamic-Anterior Pituitary Axis	325-332
11	Thyroid Axis/Stress Management: Adrenalin	332-352
12	Stress Management: Glucocorticoids	336-352
13	sex differentiation; quiz 3	586-602
14	male Reproduction	586-602
15	female Reproduction	603-631
16	Fertilization	627-645
17	Pregnancy; quiz 4	627-645
EXAM I (Lectures 2-17)		
18	Neurons, Glia, Brain, Spinal Cord, ANS	135-141, 169-185
19	Membrane Potentials and Graded Potentials	142-148
20	Action Potentials	148-156
21	Synapses; quiz 5	156-163
22	Neurotransmitters and neuropharmacology	163-169
23	Somatosensory Physiology and Pain	186-202
24	Vision and Hearing	198-217
25	Vestibular and Chemosensory Physiology, quiz 6	217-227
26	Skeletal Muscle Structure and Force Generation	255-264
27	Mechanics of Single-Fiber Contraction I	254-258
28	Mechanics of Single-Fiber Contraction II	259-266
29	Muscle Metabolism: Link to Diabetes; quiz 7	267-278
EXAM II (Lectures 18-29)		
30	Smooth Muscle and the Gastrointestinal (GI) System	270-284
31	Regulation of GI Tract Function I	517-527
32	Regulation of GI Tract Function II	528-533
33	Intestinal Functions and GI Pathophysiology; quiz 8	533-547
34	Design of the Cardiovascular System	354-358

35	Blood and hemeostasis	417-427
36	Electrical Properties of the Heart	361-367
37	Ventricular Function; quiz 9	367-371
38	Blood Pressure	377-382
39	Control of Blood Flow	382-388
40	Microcirculation and the lymphatic system	388-395
41	Cardiac output and control of blood pressure; quiz 10	371-375 & 397-409

EXAM III (Lectures 30-41)

42	Design of the Respiratory System	435-438
43	Ventilation and Lung Mechanics	438-448
44	Determinants of Air-Blood Gas Exchange; quiz 11	448-454
45	Determinants of Air-Blood Gas Exchange	454-458
46	Oxygen and Carbon Dioxide Transport	458-460
47	Control of Respiration; quiz 12	460-468
48	Structure and Function of the Kidneys	476-480; 512-514
49	Basic Renal Processes	480-489
50	Water & Salt Balance I; quiz 13	490-495; 498-501
51	Water & Salt Balance II	495-499; 501-502; 504-505
52	Potassium / Calcium Balance	502-504
53	Hydrogen Ion Balance; Quiz 14	506-511
54	Integrating Organ Systems in Whole Body Physiology	

Final (Lectures 42-54)