

1. General Information

1a. Submitted by the College of: MEDICINE

Date Submitted: 12/19/2013

1b. Department/Division: Physiology

1c. Contact Person

Name: Ok-Kyong Park-Sarge

Email: okps@uky.edu

Phone: 8593236067

Responsible Faculty ID (if different from Contact)

Name:

Email:

Phone:

1d. Requested Effective Date: Semester following approval

1e. Should this course be a UK Core Course? No

2. Designation and Description of Proposed Course

2a. Will this course also be offered through Distance Learning?: No

2b. Prefix and Number: PGY 312

2c. Full Title: Cell Physiology and Pathophysiology

2d. Transcript Title:

2e. Cross-listing:

2f. Meeting Patterns

LECTURE: 40

OTHER: 3

OTHEREXPLAIN: Exams

2g. Grading System: Letter (A, B, C, etc.)

2h. Number of credit hours: 3

2i. Is this course repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester?

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SENATE COUNCIL

2j. Course Description for Bulletin: PGY 312, Cell Physiology and Pathophysiology, is a 3 credit-hour course that will provide students with an understanding of the structure and diverse functions of human cells. The general purpose of the lectures is not only to provide a fundamental overview of structure and function of human cell organelles in the context of cellular homeostasis, but also to discuss genetic and/or environmental factors that can impact the structure and function of one or multiple cell organelles. Discussion will include examples of human diseases such as cystic fibrosis, myopathy, and Diabetes Mellitus, wherever possible.

2k. Prerequisites, if any: An introductory college-level Biology course (e.g., BIO 148)

2l. Supplementary Teaching Component:

3. Will this course taught off campus? No

If YES, enter the off campus address:

4. Frequency of Course Offering: Spring,

Will the course be offered every year?: Yes

If No, explain:

5. Are facilities and personnel necessary for the proposed new course available?: Yes

If No, explain:

6. What enrollment (per section per semester) may reasonably be expected?: 100

7. Anticipated Student Demand

Will this course serve students primarily within the degree program?: No

Will it be of interest to a significant number of students outside the degree pgm?: Yes

If Yes, explain: There are no "Cell Physiology and Pathophysiology" courses offered on campus currently. This course serves students to get ready for intense physiology courses and to learn about the functional significance of cellular organelles in relation to human diseases such as cystic fibrosis, myopathy, and Diabetes Mellitus. Thus, we anticipate that a great number of students will be attracted to this course.

8. Check the category most applicable to this course: Traditional – Offered in Corresponding Departments at Universities Elsewhere,

If No, explain:

9. Course Relationship to Program(s).

a. Is this course part of a proposed new program?: No

If YES, name the proposed new program:

b. Will this course be a new requirement for ANY program?: No

If YES, list affected programs:

10. Information to be Placed on Syllabus.

a. Is the course 400G or 500?: No

b. The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from **10.a** above) are attached: Yes

Distance Learning Form

Instructor Name:

Instructor Email:

Internet/Web-based: No

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?

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.

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.

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?

If yes, which percentage, and which program(s)?

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?

6. How do course requirements ensure that students make appropriate use of learning resources?

7. Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.

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/>)?

9. Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? NO

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.

10. Does the syllabus contain all the required components? NO

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

Instructor Name:

SIGNATURE|SHO222|Sharon Howard|PGY 312 NEW Dept Review|20131015

SIGNATURE|KCROUCH|Kathryn F Crouch|PGY 312 NEW College Review|20131219

SIGNATURE|MRWH224|Melissa R Wilkeson|PGY 312 NEW College Review|20131219

SIGNATURE|JMETT2|Joanie Ett-Mims|PGY 312 NEW Undergrad Council Review|20140507

Courses	Request Tracking
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New Course Form

<https://myuk.uky.edu/sap/bc/soap/rfc?services=>

[Open in full window to print or save](#)

Generate R

Attachments:

Upload File

Browse...

ID	Attachment
Delete 2755	PGY 312 original submission background.docx
Delete 3456	PGY 312 Syllabus Revised.pdf

First 1 Last

Select saved project to retrieve... Get New

(*denotes required fields)

1. General Information

a. * Submitted by the College of: Submission Date:

b. * Department/Division:

c.

* Contact Person Name: Email: Phone:

* Responsible Faculty ID (if different from Contact) Email: Phone:

d. * Requested Effective Date: Semester following approval OR Specific Term/Year ¹

e. Should this course be a UK Core Course? Yes No

If YES, check the areas that apply:

Inquiry - Arts & Creativity Composition & Communications - II

Inquiry - Humanities Quantitative Foundations

Inquiry - Nat/Math/Phys Sci Statistical Inferential Reasoning

Inquiry - Social Sciences U.S. Citizenship, Community, Diversity

Composition & Communications - I Global Dynamics

2: Designation and Description of Proposed Course.

a. * Will this course also be offered through Distance Learning? Yes ¹ No

b. * Prefix and Number:

c. * Full Title:

d. Transcript Title (if full title is more than 40 characters):

e. To be Cross-Listed ² with (Prefix and Number):

f. * Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours³ for each meeting pattern type.

<input type="text" value="40"/> Lecture	<input type="text"/> Laboratory ²	<input type="text"/> Recitation	<input type="text"/> Discussion
<input type="text"/> Indep. Study	<input type="text"/> Clinical	<input type="text"/> Colloquium	<input type="text"/> Practicum
<input type="text"/> Research	<input type="text"/> Residency	<input type="text"/> Seminar	<input type="text"/> Studio
<input type="text" value="3"/> Other	If Other, Please explain:		Exams

g. * Identify a grading system:

Letter (A, B, C, etc.)

Pass/Fail

Medicine Numeric Grade (Non-medical students will receive a letter grade)

Graduate School Grade Scale

h. * Number of credits:

i. * Is this course repeatable for additional credit? Yes No

If YES: Maximum number of credit hours:

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

j. * Course Description for Bulletin:

PGY 312, Cell Physiology and Pathophysiology, is a 3 credit-hour course that will provide students with an understanding of the structure and diverse functions of human cells. The general purpose of the lectures is not only to provide a fundamental overview of structure and function of human cell organelles in the context of cellular homeostasis, but also to discuss genetic and/or environmental factors that can impact the structure and function of one or multiple cell organelles. Discussion will include examples of human diseases such as cystic fibrosis, myopathy, and Diabetes Mellitus, wherever possible.

k. Prerequisites, if any:

An introductory college-level Biology course (e.g., BIO 148)

l. Supplementary teaching component, if any: Community-Based Experience Service Learning Both3. * Will this course be taught off campus? Yes No

If YES, enter the off campus address:

4. Frequency of Course Offering.

a. * Course will be offered (check all that apply): Fall Spring Summer Winter

b. * Will the course be offered every year? Yes No

If No, explain:

5. * Are facilities and personnel necessary for the proposed new course available? Yes No

If No, explain:

6. * What enrollment (per section per semester) may reasonably be expected? 100

7. Anticipated Student Demand.

a. * Will this course serve students primarily within the degree program? Yes No

b. * Will it be of interest to a significant number of students outside the degree pgm? Yes No

If YES, explain:

There are no "Cell Physiology and Pathophysiology" courses offered on campus currently. This course serves students to get ready for intense physiology courses and to learn about the functional significance of cellular

8. * Check the category most applicable to this course:

Traditional – Offered in Corresponding Departments at Universities Elsewhere

Relatively New – Now Being Widely Established

Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).

a. * Is this course part of a proposed new program? Yes No

If YES, name the proposed new program:

b. * Will this course be a new requirement [§] for ANY program? Yes No

If YES [§], list affected programs:

10. Information to be Placed on Syllabus.

a. * Is the course 400G or 500? Yes No

If YES, the *differentiation for undergraduate and graduate students must be included* in the information required in 10.b. You must include: (i) identify additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR

b. * The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable above) are attached.

[§] Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

[§] The chair of the cross-listing department must sign off on the Signature Routing Log

- In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, requires two hours per week for a semester for one credit hour. (from SR 5.2.1)
- You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.
- In order to change a program, a program change form must also be submitted.

Rev 8/09

[Submit as New Proposal](#) [Save Current Changes](#)




From: Crouch, Kathy
To: ksh222@emsl.uky.edu
Cc: Wilkeson, Melissa R
Subject: Restarting the new course submission for PGY 312

Sent: Thu 12/19/2013 10:12 AM

Hello,

I need to stop the new course submission for PGY 312 and restart it so that the correct approval options are available at the college level. When I resubmit it you will again receive an email notification that you need to review it and approve it. However, please ignore that email as we already have your approval on record and I will move the request back to the college for their approval.

PGY 312 NEW Dept Review

   Completed Course Approval 10/14/2013 16:51:21

From: Crouch, Kathy
Sent: Thursday, December 19, 2013 9:32 AM
To: Wilkeson, Melissa R
Subject: RE: PGY 312 & ANA 518

Melissa,

Sure. These were both started before the fix was put into production. ANA 518 had no department approval, so will just stop the submission and start it again and it should route to you with the proper approval buttons. PGY 312 went first to the department who approved it. I will let them know that I am restarting it and will override the department approval so they don't have to do it again and it should then route to you with the proper buttons.

From: Wilkeson, Melissa R
Sent: Thursday, December 19, 2013 9:26 AM
To: Crouch, Kathy
Subject: PGY 312 & ANA 518

Hello Kathy,

I'm afraid I need your help again. Two of the courses in my workflow inbox are not giving me the buttons to bypass the HCCC (PGY 312 and ANA 518). I need to approve one of them but, before I can, would you please fix it in my inbox where I can have all of the new buttons of approval since neither course needs to go to HCCC? Also, could you let me know when you have fixed this so I can go in and approve as soon as possible? Thanks so much!

PGY 312

Cell Physiology and Pathophysiology

Mondays and Wednesday, 9:30-10:45 AM (or 2-3:15 PM)

Course Directors:

Office Address:

E-mail:

Office Phone:

Ok-Kyong Park-Sarge, Ph.D.

MN502A UKMC

okps@uky.edu

323-6067

Brian Jackson, Ph.D.

MS501 UKMC

brian.jackson@uky.edu

323-8503

The majority of the lectures will be given by the course co-directors, but other faculty members from the Department of Physiology with cell-type specific research expertise will participate in the later sections of the course.

Office Hours:

The course co-directors will be available for consultation throughout the course. Other instructors will be available during their period of presentation. In all cases, the best initial mode of communication with an instructor is via e-mail.

Course Description:

PGY 312, Cell Physiology and Pathophysiology, is a 3 credit-hour course that will provide students with an understanding of the structure and diverse functions of human cells. The general purpose of the lectures is not only to provide a fundamental overview of structure and function of human cell organelles in the context of cellular homeostasis, but also to discuss genetic and/or environmental factors that can impact the structure and function of one or multiple cell organelles. Discussion will include examples of human diseases such as cystic fibrosis, myopathy, and *Diabetes Mellitus*, wherever possible.

Course Pre-requisites: An introductory college-level Biology course (e.g., BIO148)

Learning Outcomes:

After completing this course, the student will be able to:

1. Describe the structure and function of the cell membrane and organelles.
2. Discuss the mechanisms of trans-membrane transport and signal transduction pathways leading to cellular homeostasis, cell proliferation, and division.
3. Analyze and discuss genetic and/or environmental factors that could cause impairment of structure and/or function of specific cellular organelles in association with human diseases such as cystic fibrosis and *Diabetes Mellitus*.

Course Materials:

Cellular Physiology and Neurophysiology: Monograph Series, 2e, by Mordecai P. Blaustein, Joseph P. Y. Kao, & Donald R. Matterson, Elsevier Mosby.

Course Grading:

Letter grades for this course will be derived from the final grades according to the scale below

Final grades in PGY 312 will be determined on the basis of:

1. Exams (80% of the final grade). There are four exams, each of which is worth 20% of the final grade. These exams are designed to test each student's ability to recall and comprehend the presented class material, as well as to analyze, synthesize, and apply to more complex cellular functions.
2. Responses to analysis/application questions that are completed through five homework/discussion (20% of the final grade). Using clinical correlation case

scenarios, students are guided to connect the normal cellular physiological principles and their counterparts in pathological conditions. Each homework/discussion is worth 4 % of the final grades.

Letter grades will be assigned according to the following scale of the final grades.

A = 90.00-100.00
B = 80.00-89.99
C = 70.00-79.99
D = 60.00-69.99
E = less than 59.99

Mid-Term Grade: Mid-term grades will be posted in my UK by the deadline established in the Academic Calendar (<http://www.uky.edu/Registrar/AcademicCalendar.htm>).

Course Policies:

Attendance Policy: Attendance is mandatory.

Excused Absense: Students may be excused for absences according to S.R. 5.2.4.2 that defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

Verification of Absences: Students may be asked to verify absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

Make-up Examinations policy: In the rare instance when a student misses an exam due to a documented illness or emergency for any legitimate reason, as determined by the University regulations, a make-up exam may be administered at the earliest convenient time. Make-up exams may consist of Essay or Oral questions. It is the responsibility of the student to contact the course director as soon as possible if a make-up exam is requested.

Submission of assignments: Students will be required to submit their responses to discussion questions at the end of each discussion sessions. Any assignment a student turns in may be submitted to an electronic database to check for plagiarism.

Accomodations due to disability: If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from

the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address: jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

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 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, or national/regional origin.

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.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Part II of *Student Rights and Responsibilities* (available online <http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. 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.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work that a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

Tentative Course Schedule

Meeting #	Title
1	Principles of Cell Homeostasis and Pathophysiology
2	Cell organelle I: Plasma membrane structure
3	Cell organelle II: Nucleus, nuclear membrane: progeria
4	Cell organelle III: Ribosome, endoplasmic reticulum (ER): cystic fibrosis and Huntington's
5	Cell organelle IV: Golgi: Duchenne muscular dystrophy
6	Cell organelle V: mitochondria: mitochondrial myopathy
7	Lysosomes, peroxisomes, and endosomes: Tay-Sachs disease
8	Cytoskeleton: keratin disease
9	Exam 1
10	Junctions; leaky intestine, Charcot-Marie-Tooth disease
11	Molecular Transport I: Diffusion of gases: chronic obstructive pulmonary disease (COPD)
12	Molecular Transport II: Diffusion of ions: channels: cystic fibrosis
13	Molecular Transport III: Osmosis: cholera
14	Molecular Transport IV: Carrier-mediated transport: <i>Diabetes Mellitus</i>
15	Molecular Transport V: Active transport: heart failure
16	Exam 2
17	Molecular Transport VI: Vesicle-mediated transport: endo- vs. exocytosis: <i>Diabetes Mellitus</i>
18	Chemicals, Receptors, and Signal Pathways I: membrane receptors: congenital night blindness
19	Chemicals, Receptors, and Signal Pathways I: intracellular receptors: androgen-insensitivity syndrome
20	Epithelial cells I: structural and functional characteristics
21	Epithelial cells II: polarity: polycystic kidney disease
22	Connective cells I: structural and functional characteristics
23	Connective cells II: sickle cells, epidermolysis bullosa
24	Exam 3
25	Neurons I: structural and functional characteristics
26	Neurons II: muscular dystrophy; neuropathy
27	Muscle cells I: structural and functional characteristics
28	Muscle cells II: muscular dystrophy; myopathy
29	Cell Proliferation and Cell Division: Down syndrome
30	Final Exam
31	