1. School/Division: Medicine/Graduate
2. Academic Subject Code: GRAD
3. Course Number: 6727 (must be cleared with University Enrollment Services)
4. Instructor: E. Rosen, PhD
5. Course Title: Animal Models of Human Disease
6. First time this course is to be offered (Semester/Year): Spring 2008
7. Credit Hours: Fixed at 1 or Variable from ___ to ___
8. Is this course to be graded S-F (only)? Yes _ No X
9. Is variable title approval being requested? Yes _ No X
10. Course description (not to exceed 50 words) for Bulletin publication: This class explores advantages and limitations of animal models of human disease. Topics include models for diabetes, psychiatric disorders, cancer, osteoporosis, polycystic kidney and cardiovascular disease. The goal of the course is to provide a framework for students to select experimental animal models in their future research careers.
11. Lecture Contact Hours: Fixed at ___ or Variable from ___ to ___
12. Non-Lecture Contact Hours: Fixed at 0 or Variable from ___ to ___
13. Estimated enrollment: 5 of which 100 percent are expected to be graduate students.
14. Frequency of scheduling: Annually Will this course be required for majors? No
15. Justification for new course: Elective module in new open admissions PhD curriculum
16. Are the necessary reading materials currently available in the appropriate library? Yes
17. Please append a complete outline of the proposed course, and indicate instructor (if known), textbooks, and other materials.
18. If this course overlaps with existing courses, please explain with which courses it overlaps and whether this overlap is necessary, desirable, or unimportant.
19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of the new course with existing courses or areas of strong concern, with instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions thus consulted.

Submitted by:

[Signature]
Department Chairman/Division Director

Date 5/16/07

Approved by:

[Signature]
Dean

Date

[Signature]
Chancellor/Vice-President

Date

[Signature]
University Enrollment Services

Date

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing, and the remaining four copies and attachments to the Campus Chancellor or Vice-President.

UPS 724
University Enrollment Services Final—White; Chancellor/Vice-President—Blue; School/Division—Yellow; Department/Division—Pink; University Enrollment Services Advance—White
New Course Request

I. Title: Animal Models of Human Disease  
   Course number: GRAD-G727  
   Course Director: Elliot Rosen Ph.D.  
   Prerequisites: none

II. COURSE DESCRIPTION AND RATIONALE  
    This course is designed to introduce graduate students in the biomedical sciences to the advantages and limitations of experimental animal models for particular human diseases. The goal is to develop an appreciation among students at an early stage in their scientific careers that after choosing a biomedical process or pathology to study, it is critical to exercise good scientific judgment when choosing an experimental animal model. The course will explore animal models for cardiovascular disease, diabetes, psychiatric disorders, cancer, osteoporosis and polycystic kidney disease. This is a lecture-based one credit module that will be offered every year to all incoming basic science doctoral graduate students in the School of Medicine programs or other interested graduate students and fellows. The format will be 1.5 hour discussion and lecture sessions.

Course Description for the cover sheet and bulletin:  
This class explores advantages and limitations of animal models of human disease. Topics include models for diabetes, psychiatric disorders, cancer, osteoporosis, polycystic kidney and cardiovascular disease. The goal of the course is to provide a framework for students to select experimental animal models in their future research careers.

III. EDUCATIONAL OBJECTIVES  
    • Describe and discuss animal models of human disease. These include models of:  
      o Hemostasis,  
      o Cardiovascular disease  
      o Cancer  
      o Diabetes  
      o Psychiatric and behavioral disorders (anxiety and alcoholism)  
      o Osteoporosis  
      o Polycystic Kidney Disease  
    • Explore the advantages and limitations of particular animal models for specific disease states

IV. COURSE CONTENT:  

1 Credit Hour Modular course

<table>
<thead>
<tr>
<th>Session 1</th>
<th>Introduction and historical perspective regarding animal models for the study of biological processes and disease. The generation of genetic, developmental and biochemical animal models.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 2</td>
<td>Animal models of hemostasis. Genetic manipulation, technological advances</td>
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<tr>
<td>Session 3</td>
<td>Atherosclerosis</td>
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<td>Session 4</td>
<td>Large animal models of thrombosis and vascular disease.</td>
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<td>--------------------------------------------------------</td>
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<tr>
<td>Session 5</td>
<td>Prostate Cancer</td>
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<tr>
<td>Session 6</td>
<td>Osteoporosis</td>
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<tr>
<td>Session 7</td>
<td>Diabetes</td>
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<tr>
<td>Session 8</td>
<td>Psychiatric and behavioral disorders</td>
</tr>
<tr>
<td>Session 9</td>
<td>Bioinformatic and Biocomplexity</td>
</tr>
<tr>
<td>Session 10</td>
<td>EXAM</td>
</tr>
</tbody>
</table>

V. REQUIRED AND RECOMMENDED TEXTS:

A textbook has not been assigned – it is expected that most information will come from primary research articles.

VI. EVALUATION AND GRADING:

Student grades in the course will be determined by one final examination. The exam will consist of short essay questions. Objectives covered in the lectures will be the source of all examination questions.

Grading Scale:

<table>
<thead>
<tr>
<th>Letter grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>96-100</td>
</tr>
<tr>
<td>A</td>
<td>93-95.99</td>
</tr>
<tr>
<td>A-</td>
<td>90-92.99</td>
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<tr>
<td>B+</td>
<td>86-89.99</td>
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<tr>
<td>C</td>
<td>60-74.99</td>
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<tr>
<td>D</td>
<td>50-59.99</td>
</tr>
<tr>
<td>F</td>
<td>&lt;50</td>
</tr>
</tbody>
</table>

Note that grades of C and lower are not passing grades in graduate level courses.

VII. BIBLIOGRAPHY:

Catherine Fievet, Jean-Charles Fruchart, Bart Staels. Genetically-engineered animals as research models for atherosclerosis: their use for the characterization of PPAR


VIII. CHEATING AND PLAGIARISM:

Students are instructed to make themselves aware of University regulations concerning plagiarism, the maintenance of academic honesty and the definitions of unacceptable behavior and cheating. Academic misconduct of any sort will not be tolerated and will be dealt with as outlined in the IU/IUPUI Code of Student Rights, Responsibilities, and Conduct, which can be viewed at: http://www.life.iupui.edu/help/docs/Part_3all.html

Examples of misconduct include but are not limited to:
1. Cheating
   A student must not use or attempt to use unauthorized assistance, materials, information, or study aids in any academic exercise
2. Fabrication
   A student must not falsify or invent any information or data in an academic exercise including, but not limited to, records or reports, laboratory results, and citations to the sources of information.
3. Plagiarism
   A student must not adopt or reproduce ideas, words, or statements of another person without appropriate acknowledgment. A student must give credit to the originality of others and acknowledge an indebtedness whenever he or she does any of the following:
   a. Quotes another person’s actual words, either oral or written
   b. Paraphrases another person’s words, either oral or written
   c. Uses another person’s idea, opinion, or theory; or
   d. Borrows facts, statistics, or other illustrative material, unless the information is common knowledge.
4. Interference
   a. A student must not steal, change, destroy, or impede another student’s work.
   b. A student must not give or offer a bribe, promise favors, or make threats with the intention of affecting a grade or the evaluation of academic performance.

Potential consequences for academic misconduct:

If the instructor has information that one of his/her students committed an act of academic misconduct, the faculty member will hold an informal conference with the student. The conference will be prompt and private. If the faculty member concludes that the student is responsible for the misconduct, then the faculty member will impose
an appropriate academic sanction (i.e., lower or failing grade on the assignment, assessing a lower or failing grade for the course).

IX. AMERICANS WITH DISABILITIES ACT:

If you need any special accommodations due to a disability, please contact Adaptive Educational Services at (317)-274-3241. The office is located in CA 001E.
Dear Simon,

The new course entitled "Animal Models of Human Disease" does not overlap with any offerings in the Department of Biology.

Doug

Dear Doug,

Here is another 1 credit modular course. Please let me know if you agree with us submitting it for approval. Thanks

Simon

Attachment converted: Macintosh HD:Animal Models Course#442A50.doc (WDBN/«IC») (00442A50)

_______________________________________________________

From: schultz@chem.iupui.edu
To: Rhodes, Simon J
Subject: Re: biomedical science courses

Simon

There are no conflicts with existing courses in the Department of Chemistry and Chemical Biology.

With best regards,

Frank