

New Course Request

Indiana University

Indianapolis Campus

Check Appropriate Boxes: Undergraduate credit Graduate credit Professional credit

1. School/Division Medicine/Graduate 2. Academic Subject Code GRAD
3. Course Number G831 (must be cleared with University Enrollment Services) 4. Instructor David Basile
5. Course Title Concepts and Controversies in Cardiovascular Science
Recommended Abbreviation (Optional) _____
(Limited to 32 Characters including spaces)

6. First time this course is to be offered (Semester/Year): Fall 2009
7. Credit Hours: Fixed at 2 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: A Journal Club/Seminar format course that will focus on topical areas of advanced cardiovascular research and emphasizing modern approaches to study cardiovascular function. Topics will change each semester but may include, regulation of vascular tone, cardiovascular development control of cardiac function, myopathies, atherosclerosis and blood pressure.

11. Lecture Contact Hours: Fixed at _____ or Variable from _____ to _____
12. Non-Lecture Contact Hours: Fixed at 30 or Variable from _____ to _____
13. Estimated enrollment: 8-12 of which 100 percent are expected to be graduate students.
14. Frequency of scheduling: 1 Will this course be required for majors? No

15. Justification for new course: An elective module for IBMG and requirement for newly proposed cardio vascular science minor.
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: Michael Sturek Date 6/1/09
Department Chairman/Division Director

Approved by: [Signature] Date 6/1/09
Dean

Date _____
Dean of Graduate School (when required)

Date _____
Chancellor/Vice-President

Date _____
University Enrollment Services

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.

I. HEADER

Concepts and Controversies in Cardiovascular Science

Course Number: G831

Course Director: David Basile

Prerequisites: Cardiovascular, Renal and Respiratory Function (G735) or consent of instructor.

II. COURSE DESCRIPTION AND RATIONALE

Advanced (2 credit hour) course integrating physiology, pharmacology, pathophysiology, biochemical and molecular biological approaches in the study of cardiovascular sciences. The purpose of this class is to emphasize developing points of view or present controversial topics related to cardiovascular science. Course material will be derived from the primary literature. The format of this course will be a journal club, in which the students will present and discuss 2-3 articles per week in a seminar-style format, including the appropriate use of slides. The goal of each semester will be to cover 1-2 major areas of cardiovascular science with the topics selected by faculty and course director every semester. This course can be repeated for credit. (2 hours/week).

III. EDUCATIONAL OBJECTIVES

At the completion of this course the students will:

1. Advance understanding of a specific series of cardiovascular topics from multiple perspectives.
2. Gain appreciation for scientific investigation of questions in cardiovascular science using a diverse series of investigative techniques including integrating physiological, pharmacological and advanced molecular biological approaches
3. To become accustomed with preparing and delivering oral presentations.
4. To increase proficiency of scientific writing ability.

IV. COURSE CONTENT

The course content will vary each semester, with the course director and selected faculty selecting the overall scope of the topics to be discussed. The course will meet 1 day/ week (2 hours/session). Each week, 1-2 students will present specific topics highlighted by important published manuscripts with emphasis placed in discussion from the entire class. Students are anticipated to present between 2-4 presentations per semester.

In addition, the student will be responsible to generate a term paper on topics selected in conjunction with the course instructor. This paper must be written in the form of "hypothesis proposal", written in scientific language, presenting relevant background, supporting and alternative points of view and appropriately cited.

V. REQUIRED AND RECOMMENDED TEXTS

This course will not require a text book. Selected review and primary articles will be assigned by faculty.

VI. EVALUATION AND GRADING

	DESCRIPTION	WEIGHT
Oral Presentations	Ability to orally discuss the primary manuscripts effectively	50%
Discussion	Interactive discussion to demonstrate critical thinking about concepts	20%
Term Paper	Critical scientific writing	30%

Grading Scale:

Letter grade	Percentage
A	93-100
A-	90-92.99
B+	87-89.99
B	75-86.99
C	60-74.99
D	50-59.99
F	<50

VII. BIBLIOGRAPHY – some example publications

Hemodynamic Regulation of Cardiovascular System

Guyton AC *et al.* Venous return at various right atrial pressures and the normal venous return curve. *Am J Physiol* 189: 609-615, 1957.

Brengelmann GL. A critical analysis of the view that right atrial pressure determines venous return. *J Appl Physiol* 94: 849-859, 2003.

Vascular Control

Berne RM. Cardiac nucleotides in hypoxia: possible role in regulation of coronary blood flow. *Am J Physiol* 204: 317-322, 1963.

Ely SW *et al.* Measurements of coronary plasma and pericardial infusate adenosine concentrations during exercise in conscious dog: relationship to myocardial oxygen consumption and coronary blood flow. *J Mol Cell Cardiol* 15: 673-683, 1983.

Tune *et al.* Adenosine is not responsible for local metabolic control of coronary blood flow in dogs during exercise. *Am J Physiol Heart Circ Physiol* 278: H74-H84, 2000.

Skeletal Muscle Pump

Sherriff DD. Point: The muscle pump raises muscle blood flow during locomotion. *J Appl Physiol* 99: 371-372, 2005.

Clifford PS. Counterpoint: The muscle pump is not an important determinant of muscle blood flow. *J Appl Physiol* 99: 372-375, 2005.

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.iupui.edu/code/>

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.