

## NEW COURSE PROPOSAL

PROGRAM AREA BIOLOGY

- 1. Catalog Description of the Course.** *[Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of \_\_\_ units); time distribution (Lecture \_\_\_ hours, laboratory \_\_\_ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]*

### BIOL 424. HUMAN PHYSIOLOGY (3)

Three hours of lecture per week.

Prerequisite: CHEM 122; BIOL 300 with a grade of C better.

Study of human physiology at both the cellular and organ system levels including neurophysiology, muscle physiology, cardiovascular physiology, respiration, kidney function, hormone function and reproduction.

- 2. Mode of Instruction.**

	Units	Hours per Unit	Benchmark Enrollment
Lecture	<u>3</u>	<u>1</u>	<u>30</u>
Seminar	<u>          </u>	<u>          </u>	<u>          </u>
Laboratory	<u>          </u>	<u>          </u>	<u>          </u>
Activity	<u>          </u>	<u>          </u>	<u>          </u>

- 3. Justification and Learning Objectives for the Course.** (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) *[Use as much space as necessary]*

BIOL 424 is an elective course for Biology majors. This is an advanced course in human physiology which will be of interest to students desiring a well-rounded education in biology as well as pre-professional students.

Students who successfully complete this course will be able to:

- Describe the function and structure of cells including the metabolic reactions that occur in cells
- Outline, at the molecular level, the transmission of signals in excitable cells
- Explain the structure and function of organ systems in the human body

- 4. Is this a General Education Course**                      **YES**                      **NO**  
If Yes, indicate GE category:

<b>A (English Language, Communication, Critical Thinking)</b>	
<b>B (Life Sciences)</b>	
<b>C (Fine Arts, Literature, Languages &amp; Cultures)</b>	
<b>D (Social Perspectives)</b>	
<b>E (Human Psychological and Physiological Perspectives)</b>	

- 5. Course Content in Outline Form.** *[Be as brief as possible, but use as much space as necessary]*

Homeostasis  
Cellular structure  
Cellular metabolism  
Membrane transport  
Endocrine signaling  
Nerve cells and electrical signaling

- The nervous system
- Muscle physiology
- The cardiovascular system
- The respiratory system
- The urinary system
- The digestive system
- The reproductive system
- The immune system

**6. References.** *[Provide 3 - 5 references on which this course is based and/or support it.]*

Germann, W.J. and Stanfield, C.L. *Principles of Human Physiology*. (2002). Benjamin Cummings.  
 Sherwood, L. *Human Physiology: From Cells to Systems*, 4<sup>th</sup> edition. (2001). Brooks/Cole.  
 Fox, S.I. *Human Physiology*, 7<sup>th</sup> edition. (2002). McGraw-Hill.

**7. List Faculty Qualified to Teach This Course.**

Nancy Mozingo, other biology faculty

## 8. Frequency.

a. Projected semesters to be offered: Fall   x   Spring        Summer       

## 9. New Resources Required.

- Computer (data processing), audio visual, broadcasting needs, other equipment
- Library needs
- Facility/space needs

## 10. Consultation.

Attach consultation sheet from all program areas, Library, and others (if necessary)

**11.** If this new course will alter any degree, credential, certificate, or minor in your program, attach a program modification.

\_\_\_\_Nancy Mozingo\_\_\_\_6 January 2003\_\_\_\_  
Proposer of CourseDate