

NEW COURSE PROPOSAL

PROGRAM AREA _____

- 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 428 BIOLOGY OF CANCER (3)

Three hours of lecture per week.

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

Principles of oncology are examined. Included are mechanisms of oncogenesis at cellular and molecular levels, characteristics of cancer, advantages and disadvantages of various therapies of cancer treatment.

2. Mode of Instruction.

	Units	Hours per Unit	Benchmark Enrollment
Lecture	3	1	30
Seminar	_____	_____	_____
Laboratory	_____	_____	_____
Activity	_____	_____	_____

- 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]*

This is an elective course for Biology and ESRM majors designed to introduce students to the latest advances in Biology of Cancer.

Students that successfully complete this course will be able to:

1. Evaluate biological factors that influence human cancer.
2. Demonstrate their ability to reason both inductively and deductively with experimental information and data.
3. Explain the molecular and biochemical basis, diagnosis and treatment of cancer.
4. Select and apply experimental procedures to cancer screening and therapy.

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

A (English Language, Communication, Critical Thinking)	
B (Mathematics & Sciences)	
C (Fine Arts, Literature, Languages & Cultures)	
D (Social Perspectives)	
E (Human Psychological and Physiological Perspectives)	

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

- Introduction
- Characteristics of Human Cancer
- Cancer Epidemiology
- The Genetic Basis of Cancer
- Oncogenes
- Tumor Suppressor Genes
- Growth Factors and Signal Transduction
- The Cell Cycle and Apoptosis
- Cancer Therapy

- Cancer Immunology
- Cancer Prevention

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

Cancer Biology 3rd Ed. R.W. Ruddon, Oxford, ISBN 0195096916

Biology of Cancer Phillis, Goodwin and Palladino, Addison Wesley & Benjamin Cummings, ISBN 0-8053-4687-0

Cancer The Evolutionary Legacy M. Greaves, Oxford, ISBN 0192628348

7. List Faculty Qualified to Teach This Course.

Louise Lutze-Mann

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.

Louise Lutze-Mann

_____1-3-03_____
 Proposer of Course Date