

Course Change Request

Indiana University

IUINA

Campus

Check Appropriate Boxes: Undergraduate credit [ ] Graduate credit [X] Professional credit [ ]

1. School/Division Medicine/ Public Health
2. Academic Subject Code PBHL 3. Current Course Number P505 4. Current Credit Hours 3
5. Current Title Cancer Epidemiology
6. Effective Semester/Year for changes listed below: Fall 2009 7. Instructor: Swanson

Type of Change Requested (Check appropriate boxes and indicate changes)

[X] 8. Change course number to: P618 (must be cleared with University Enrollment Services)
[ ] 9. Current course title:
Change to:
Recommended abbreviation (optional)

[X] 10. Current credit hours fixed at: 3 or variable from: --- to ---
Change to credit hours fixed at: --- or variable from: --- to ---

[X] 11. Current lecture contact hours fixed at: 3 or variable from: --- to ---
Change to lecture contact hours fixed at: --- or variable from: --- to ---

[X] 12. Current non-lecture contact hours fixed at: --- or variable from: --- to ---
Change to non-lecture contact hours fixed at: --- or variable from: --- to ---

[X] 13. Is this course currently graded with S-F (only) grades? Yes \_\_\_ No [X]
Change to S-F (only) grading? Yes \_\_\_ No \_\_\_

[X] 14. Does this course presently have variable title approval? Yes \_\_\_ No [X]
Is variable title approval being requested? Yes \_\_\_ No \_\_\_

[ ] 15. Is this course being discontinued? For all campuses \_\_\_ or for this campus only \_\_\_

[ ] 16. Current course description This course is an overview of cancer epidemiology, focusing on key concepts, etiologic reserach, applications to public health practice and major methodologies.

Change course description to (not to exceed 50 words)

17. Justification for change This is a 600 level second year course
(Use additional paper if necessary)

18. Are the necessary reading materials currently available in the appropriate library? Yes

19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of this 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: Carole Kacius Date 3/11/09
Department Chairman/Division Director

Deane Legman Date 3/18/09
Dean of Graduate School (When required)

Approved by:
Date

Dean
Date

Chancellor/Vice-President
Date

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.

**Indiana University  
IUPUI Campus  
School of Medicine  
Department of Public Health**

**SYLLABUS**

**Cancer Epidemiology  
Fall Semester, 2008**

**Course Overview and Summary**

**Time:** TBA

**Location:** TBA

**Instructor:** G. Marie Swanson, Professor and Associate Chair, Department of Public Health, IU School of Medicine, Suite EF250 714 N Senate, Indianapolis IN 46202, [swanson3@iupui.edu](mailto:swanson3@iupui.edu); 278-0754.

**Office Hours:** One hour before class and by appointment

**Course Description:** Cancer Epidemiology. This course is an overview of cancer epidemiology, focusing on key concepts, etiologic research, applications to public health practice and major methodologies.

**Course Prerequisite:** H517 Fundamentals of Epidemiology

**Course Learning Objectives:** Upon completion of this course, students should be able to identify and apply the following to epidemiologic research and public health practice:

- 1—basic concepts of Cancer Epidemiology
- 2—basic methods of Cancer Epidemiology
- 3—host factors, infectious agents, carcinogenesis
- 4—basic approaches to cancer control and prevention
- 5—internet-based cancer epidemiologic materials for surveillance, control, prevention, and policy

and to:

- 6—develop appropriate epidemiologic research hypotheses and study designs as well as population-based cancer prevention, screening, and control interventions.
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**Course Materials and Notes:** The Course materials and notes are found online at Oncourse. Materials include: syllabus, readings, concepts and methods, and homework assignments. In addition, lecture powerpoint notes and other materials will be provided online at Oncourse just after each session.

**Required Texts:** TBA

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**Course Requirements:** Homework Assignments, class presentations, one paper and a final exam. See Homework Sheet.

**Grading/Student Evaluation:** Grades will be based on points for each component of the course requirements. Each homework assignment will be valued at 10 points, each class presentation at 20 points, class attendance and general class participation at 40 points, the paper at 40 points and the final exam at 50 points.

**Class Attendance/Participation:** Class attendance and participation is required. There will be a sign-in sheet for each class. Students must participate in both formal and informal discussion during each class session.

It is expected that you will have thoroughly read all of the assigned material for the week, and be prepared to speak on any of the topics covered in the reading. You will be graded not simply for participating in class discussion, but on your meaningful contributions to the discourse.

### **Evaluation and Grading**

Homework assignments	80 points
Class presentations	40 points
In-class activities and class participation	40 points
Course project written report	40 points
Final Exam	50 points
Total	250 points

The grading scale is as follows:

Points	Letter
220-250	A
190-219	B
189-218	C
217 or less	F

All holidays or special events observed by organized religions will be honored for those students who show affiliation with that particular religion. Absences pre-approved by the IUPUI Dean of Students (or Dean's designee) will be honored.

## Course Schedule

### *Session 1*

Detailed overview of course and course requirements, including the approach to the course overall and to each session. Organization of class, introduction of students, Introduction to Cancer Epidemiology, Cancer Biology and Carcinogenesis, and Biomarkers and Molecular Epidemiology.

Readings: Ruddon, R. *Cancer Biology*, 4<sup>th</sup> Edition, March, 2007, Oxford University Press., selected chapters.

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### *Session 2*

Descriptive Cancer Epidemiology: Overview and Sources of Data. Comparison of NCI SEER Program and CDC State Cancer Registries.

Websites for this session: [www.cdc.gov/cancer/npcr](http://www.cdc.gov/cancer/npcr) and [www.cancer.gov/statistics](http://www.cancer.gov/statistics)

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### *Session 3*

#### Cancer Prevention

Primary prevention  
Chemoprevention

#### Cancer and Chronic Disease Co-morbidity

Prevalence of Chronic Disease Co-morbidity  
Aging and Chronic Disease Co-morbidity

Readings: There will be 2-4 current journal articles assigned for this session. The articles and references can be found online in the Homework Table.

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### *Session 4*

#### Screening for early detection of cancer

Principles and practices  
Public health guidelines  
Culturally appropriate interventions  
Ethical issues  
Design of screening interventions in  
public health practice settings

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## **Session 5**

### ***Colon Cancer Overview***

- **Colon cancer**
- **Colorectal polyps**
- **Selected risk factors**
- **Descriptive epidemiology**
- **Screening**

### ***Lung Cancer Overview***

- **Lung cancer**
- **Prevention**
- **Other selected risk factors**
- **Descriptive epidemiology**
- ***Genetic epidemiology***

**Readings:** Selected chapters from **Human Cancer: Epidemiology and Environmental Causes**. Cambridge University Press, November, 2005. Current journal articles on these topics also will be assigned—see Homework table online.

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## **Session 6**

***Class Presentations: Preliminary research questions, specific aims, hypotheses, and background for research proposal (course paper).***

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## **Session 7**

### ***Breast Cancer Overview***

- ***Breast Cancer***
- ***Male breast cancer***
- ***Selected Risk factors***
- ***Descriptive epidemiology***
- ***International trends***
- ***Screening***
- ***Genetic epidemiology and Genetic testing***
- ***Prevention***

***Overview of other female cancers: Ovary, cervix, uterus***

- Descriptive epidemiology
- Screening
- Selected risk factors
- Genetic epidemiology and genetic testing
- Prevention

**Readings:** Selected chapters from *Human Cancer: Epidemiology and Environmental Causes*. Cambridge University Press, November, 2005. Current journal articles on these topics also will be assigned—see Homework table online.

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## **Session 8**

### **Ethical Issues and Key Methodologies for Cancer Epidemiology Research and Cancer Prevention and Control Interventions**

- Social justice
- To pay or not to pay
- Recruitment of participants and communities
- Measurement and definitions
- Genetics and ethics
- Questionnaires vs biomarkers

**Readings:** Selected articles from recent scientific publications will be utilized to demonstrate each concept and methodology

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## **Session 9**

### ***Prostate Cancer Overview***

- Prostate Cancer
- Selected risk factors
- Descriptive epidemiology
- Screening
- Prevention

### ***Testicular Cancer***

- Descriptive epidemiology
- Screening
- Selected risk factors

**Readings:** Selected chapters from *Human Cancer: Epidemiology and Environmental Causes*. Cambridge University Press, November, 2005. Current journal articles on these topics also will be assigned—see Homework table online.

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**Session 10**

**Occupational and Environmental Cancer Risks**

**Basic concepts  
Methodologies common to these studies**

**Readings: There will be 2-4 current journal articles assigned for this session. The articles and references can be found online in the Homework Table.**

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**Session 11**

**Second Set of Presentations—Each student will present a concept for a cancer prevention or screening intervention AND a timely issue for public health policy in the form of a media “soundbite”.**

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**Session 12**

**Genetics and Family History in Cancer Epidemiology**

**Readings: There will be 2-4 current journal articles assigned for this session. The articles and references can be found online in the Homework Table.**

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**Session 13**

**Diet and Cancer**

**Obesity  
Dietary Fat  
Fruits, vegetables, and fiber  
Alcohol**

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**Session 14**

**Childhood Cancers**

**Descriptive epidemiology  
Leukemias  
Long-term survivorship  
Quality of life**

**Readings:** There will be 2-4 current journal articles assigned for this session. The articles and references can be found online in the Homework Table.

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**Session 15**

**Student Presentations—Group 1**

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**Session 16**

**Student Presentations—Group 2**

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**Academic Integrity:** Students are expected to be familiar with the IUPUI Student Code of Conduct found at <http://www.iupui.edu/code> and to abide by all of Part II, Student Responsibilities.

**Classroom Behavior:** There will be no cell phone use, no activity other than the classroom lectures, assignments, discussions; no reading of any material not assigned for in-class reading for the session, no internet browsing, etc. All classroom behavior will be professional and respectful of all others in the classroom.

**Grievance Policy:** The IUPUI Grievance policy is followed in this course. For more information: [http://life.iupui.edu/help/docs/Part\\_2all.html](http://life.iupui.edu/help/docs/Part_2all.html)

**Disability Accommodation:** Students who are registered with the Disability Resource Center must submit appropriate documentation to the instructor if they are requesting reasonable accommodations:  
The Office of Adaptive Educational Services actively works to make campus life and learning accessible for students with disabilities. Sign language, interpreters, note takers, readers, exam proctors, and classroom accommodations are services offered by Adaptive Educational Services. For more information call 274-3241. (TDD available)  
Visit: <http://life.iupui.edu/aes/>

**Syllabus Changes:** Information contained in the course syllabus, other than the grade and absence policies, may be subject to change with reasonable advance notice, as deemed necessary and appropriate by Professor Swanson.