New Course Request

Indiana University

Indianapolis Campus

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

1. School/Division: School of Science
2. Academic Subject Code: FIS

3. Course Number: 206 (must be cleared with University Enrollment Services)
4. Instructor: Gina Ammerman

5. Course Title: Concepts of Forensic Science II

Recommended Abbreviation (Optional) _____________________________
(Limited to 32 Characters including spaces)

6. First time this course is to be offered (Semester/Year): Spring 2008

7. Credit Hours: Fixed at ______ 3 ______ 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: P: FIS 205, BIOL K103, CHEM C106/126. Spring semester. Continuation of FIS 205. Forensic chemistry and biology; hairs and fibers, fires and explosions, paints and coatings, blood and DNA, drugs and toxicology.

11. Lecture Contact Hours: Fixed at ______ 3 ______ or Variable from ________ to ________

12. Non-Lecture Contact Hours: Fixed at ______ 0 ______ or Variable from ________ to ________

13. Estimated enrollment: 100 ______ of which ______ 0 ______ percent are expected to be graduate students.

14. Frequency of scheduling: every spring. Will this course be required for majors? Yes [ ]

15. Justification for new course: Intro course will cover the hard science areas of forensic science.

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: ___________________________ Date 1/19/07
Department Chairman/Division Director

Approved by: ___________________________ Date 2/4/07
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.

UPS 724
University Enrollment Services Final—White; Chancellor/Vice-President—Blue; School/Division—Yellow; Department/Division—Pink; University Enrollment Services Advance—White.
**PURDUE UNIVERSITY**

REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE
(100-400 LEVEL)

**DEPARTMENT**  Forensic and Investigative Sciences  **EFFECTIVE SESSION**  Spring 2008

**INSTRUCTIONS:** Please check the items below which describe the purpose of this request.

- [ ] 1. New course with supporting documents
- [ ] 2. Add existing course offered at another campus
- [ ] 3. Expiration of a course
- [ ] 4. Change in course number
- [ ] 5. Change in course title
- [ ] 6. Change in course credit type

- [ ] 7. Change in course attributes (department head signature only)
- [ ] 8. Change in instructional hours
- [ ] 9. Change in course description
- [ ] 10. Change in course requisites
- [ ] 11. Change in semesters offered (department head signature only)
- [ ] 12. Transfer from one department to another

**PROPOSED:**

- **Subject Abbreviation:** FIS
- **Course Number:** 206
- **Long Title:** Concepts of Forensic Science II
- **Short Title:**

**EXISTING:**

- **Subject Abbreviation:**
- **Course Number:**
- **Long Title:** Concepts of Forensic Science II
- **Short Title:**

**TERMS OFFERED:**

- [ ] Summer
- [ ] Fall
- [ ] Spring

**CAMPUS(ES) INVOLVED:**

- [ ] Calumet
- [ ] Cont Ed
- [ ] Tech Statewide
- [ ] Ft. Wayne
- [ ] W. Lafayette
- [ ] Indianapolis

**ABBREVIATED TITLE WILL BE ENTERED BY THE OFFICE OF THE REGISTRAR IF OMITTED. (22 CHARACTERS ONLY):**

**CREDIT TYPE:**

- 1. Fixed Credit: Cr. Hrs. 3
- 2. Variable Credit Range: Minimum Cr. Hrs. (Check One) To  Or 
  Maximum Cr. Hrs. 3
- 3. Equivalent Credit: Yes  No
- 4. Thesis Credit: Yes  No

**INSTRUCTIONAL TYPE:**

- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance
- Clinic
- Experiential
- Research
- Ind. Study
- Pract/Observ

- Minutes Per Mtg 75
- Meetings Per Week 2
- Weeks Offered 16
- % of Credit Allocated 100
- Delivery Method (Asym. Or Syn.)
- Delivery Medium (Audio, Internet, Live, Text-Based, Video)

- Cross-Listed Courses

**COURSE DESCRIPTION (INCLUDE REQUISITES):**

P: FIS 205, BIOL K103, CHEM C102/C128. Spring semester. Continuation of FIS 205. Forensic chemistry and biology; hairs and fibers, fires and explosions, paints and coatings, blood and DNA, drugs and toxicology.

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**Signature Lines:**

- Calumet Department Head
- Calumet School Dean
- Fort Wayne Department Head
- Fort Wayne School Dean
- Indianapolis Department Head
- Indianapolis School Dean
- North Central Department Head
- North Central Chancellor
- West Lafayette Department Head
- West Lafayette College/School Dean
- West Lafayette Registrar

**Office of the Registrar**
FIS 206
Concepts of Forensic Science 2
COURSE SYLLABUS AND DESCRIPTION

Gina Ammerman
Lecturer-Forensic and Investigative Sciences Program

Office: LD 322
Laboratory: LD 375 (274-6870)

Course Description
Continuation of FIS 205. Forensic chemistry and biology; hairs and fibers, fires and explosions, paints and coatings, blood and DNA, drugs and toxicology.

Prerequisites: FIS 205. Chemistry 126, Biology K-103. Required of all FIS majors


Class times and Location:

Office hours:

Class procedures
1. During the semester there will be three exams plus a final exam. The three exams during the course will be taken on a computer in the computer lab in room SL 070. You can take the exam anytime during the Thursday, Friday, Saturday or Sunday designated for the exam. You can only take it once. No materials (books, notes, cell phones, pagers, etc.) may be brought into the lab when you take the test. You will be given a user name and password to access the test on the computer. The tests will all be 50 questions off the multiple choice type. The lowest exam score of these three will be dropped. Only the best two scores will be counted. If you miss one of the exams, it will be dropped.

All Students must take the final exam, which is cumulative of the entire semester’s work. It will be given in the lecture room, Lecture 102 on the date and time specified in the schedule below. No makeups will be given for this exam and it will not be dropped.

2. Volumes of research as well as our own experience during 30 years of teaching have shown that regular attendance in large classes has a strong positive correlation with performance. Rather than merely taking attendance in this class, we will be utilizing an interactive technology in this course called “Classroom Performance System”. In this system, you purchase a clicker that resembles a TV remote control. You will be instructed on how to register the clicker for this class. The clicker is capable of communicating with my computer in the class room. During the last few minutes of most
class periods, I will give you a short quiz that requires you to enter your answers via the cl*cker*. The quiz will cover what was covered during that class period. These quizzes will be graded. There will be approximately 20 quizzes during the semester. Each quiz that you get all correct will be worth one point. You won’t get the point if you miss any questions on the quiz. Only perfection counts on the quizzes! When it comes time to compute your final grade in this course, the points you have accumulated will be added to your score. However, you must take at least 80% of the quizzes during the term in order to get full credit for the quizzes. If you take less than 80% of the quizzes, you will get only half of the points you have earned during the semester.

3. **YOU MUST HAVE ACCESS TO THE WEB USING A BROWSER.** All of the course materials including the answers to exams, assignments, news and announcements, last minute changes outlines of my lectures will be kept in an ONCOURSE file for this class. In order to read the various documents about this course, you must have Acrobat Reader installed on your computer. It is a free download from the Adobe website.

4. Owing to the large size of this class, the instructional model will be largely lecture. I will make liberal use of audio and visual aids to enhance the material. I strongly encourage questions during class time.
Academic Misconduct

(Taken from Academic Handbook, 2001 and the Code of Student Rights, Responsibilities, and Conduct)

http://www.life.indiu.edu/Who/Dean/Code

The Academic Handbook states that faculty members have the responsibility of fostering the "intellectual honesty as well as the intellectual development of students... The faculty member should explain clearly the meaning of cheating and plagiarism as they apply to the course... Should the faculty member detect signs of plagiarism or cheating, it is his or her most serious obligation to investigate these thoroughly, to take appropriate action with respect to the grades of students, and in any event to report the matter to the Dean of Students. The necessity to report every case of cheating, whether or not further action is desirable, arises particularly because of the possibility that this is not the student's first offense, or that other offenses may follow it. Equity also demands that a uniform reporting practice be enforced; otherwise, some students will be penalized while others guilty of the same actions will go free." (p. 172).

Academic Misconduct: (from the Code of Student Rights, Responsibilities, and Conduct)

1. Cheating

A student must not use or attempt to use unauthorized assistance, materials, information, or study aids in any academic exercise, including, but not limited to, the following:

a. A student must not use external assistance on any "in-class" or "take-home" examination, unless the instructor specifically has authorized external assistance. This prohibition includes, but is not limited to, the use of tutors, books, notes, and calculators.

b. A student must not use another person as a substitute in the taking of an examination or quiz.

c. A student must not steal examinations or other course materials.

d. A student must not allow others to conduct research or to prepare work for him or her without advance authorization from the instructor to whom the work is being submitted. Under this prohibition, a student must not make any unauthorized use of materials obtained from commercial term paper companies or from files of papers prepared by other persons.

e. A student must not collaborate with other persons on a particular project and submit a copy of a written report which is represented explicitly or implicitly as the student's individual work.

f. A student must not use any unauthorized assistance in a laboratory, at a computer terminal, or on field work.
g. A student must not submit substantial portions of the same academic work for credit or honors more than once without permission of the instructor to whom the work is being submitted.

h. A student must not alter a grade or score in any way.

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. Impeding another student's work includes, but is not limited to, the theft, defacement, or mutilation of resources so as to deprive others of the information they contain.

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

After reporting the information to the Dean of Students, he/she will review the information to determine if additional sanctions should be applied. Sanctions are outlined in the Code of Student Rights, Responsibilities, and Conduct. This document appears on the web at the following address:
http://www.life.iupui.edu/Who/Dean/Code/

Policy on Student Academic Misconduct
Faculty are required to report all incidents of academic misconduct to the Dean of Students. For information about policies and procedures, including due process requirements, see the Code of Student Rights, Responsibilities, and Conduct, especially part III: Student Misconduct and Part IV: Student Disciplinary Procedures. The code is accessible on the internet at http://www.life.iupui.edu/Who/Dean/Code

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.
Grading

The three midterm exams will each consist of 50 multiple choice questions that count two points each. If you take all three exams, the lowest one will be dropped. If you choose, you may miss one exam and then that one will be dropped. You may miss only one exam. The final exam is cumulative of the whole semester and is worth 100 points. It will consist of 100 multiple choice questions. YOU MUST TAKE THE FINAL EXAM during the period set aside during final exam week. Beyond the grade on your final exam and the best two midterms, you may accumulate extra points by taking the in-class quizzes as described above. Beyond these, there will be no extra credit for the course.

CONTRIBUTIONS TO THE GRADE AND GRADING SCALE

Two best midterms @ 100 points each
Final Exam 100

Total maximum: 300 points

Grading Scale:

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
<th>Points</th>
<th>Grade</th>
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<tr>
<td>285-300</td>
<td>A</td>
<td>220-229</td>
<td>C</td>
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<td>A-</td>
<td>210-219</td>
<td>C-</td>
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<tr>
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<tr>
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<td>190-199</td>
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<td>180-189</td>
<td>D-</td>
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<tr>
<td>230-239</td>
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<td>&lt;180</td>
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Course Content and Organization

Forensic science is the application of scientific methods to matters involving the public. One of its principle applications is the scientific analysis of physical evidence generated criminal activity. This course will cover four major aspects of physical evidence using real criminal and civil cases:

1. The generation of physical evidence by criminal activity
2. Collection and preservation of physical evidence
3. Analysis of physical evidence by a forensic science laboratory
4. Presentation of scientific expert testimony in court

Course objectives:
1. Explain the significance of forensic science and its function in the criminal justice system
2. List and describe the various types of physical evidence and classify them by type
3. Describe methods for collection and preservation of physical evidence from crime scenes
4. Describe how each type of physical evidence is analyzed by forensic scientists
5. List and explain the rules of evidence that apply to scientific and physical evidence
6. Describe the techniques of expert testimony and contrast it with lay testimony in court
CLASS SCHEDULE AND READING ASSIGNMENTS

Part 1: Criminal Justice and Forensic Science

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<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to Forensic Chemistry and Biology</td>
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<tr>
<td>2</td>
<td>Microscopy</td>
<td>4</td>
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<tr>
<td>3</td>
<td>Spectroscopy</td>
<td>5</td>
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<td>4</td>
<td>Chromatography</td>
<td>6</td>
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<td>5</td>
<td>Illicit Drugs</td>
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