

New Course Form

For help filling out the form press F1 or look at the bottom of the screen. For additional instructions, see Course Form Instructions.

Type of Action | **New Course – Course not previously offered.**

1. Catalog Prefix and Number*: **BIO 119**

2. Course Title: **Introduction to Forensic Science with Laboratory**

Pilot Course Information:

Are you requesting pilot status only at this time? Yes No

Implementation Date?

Are you requesting pilot status in addition to regular approval process? Yes No

Implementation date? Fall or Spring? Spring Year? 2014

Has this course been previously approved as pilot status Yes No

3. Justification for requested action.

This course is needed to offer students in the Criminal Justice Program an option to fulfill the general education requirement of natural sciences with laboratory in context with their program. The topic will appeal to a broader audience as well.

4. Submitting Entity: Curriculum Committee:

Or College: **BCTC**

5. Person(s) Primarily Responsible for Proposal (**Complete item only if course is not part of a curriculum package. Verify that members are still current and active prior to submission.**):

<u>Name</u>	<u>Teaching Area</u>	<u>College</u>
Mike Littrell	Criminal Justice	BCTC
Deborah Davis	Biology, Biotechnology	BCTC
Vicki Wilson	Communications	BCTC

Involvement of Others (Identify Individuals):

6. System Office Staff: **Mary Kleber**

7. Others: **Lexington Police Academy**

8. Is this course offered at other colleges? Yes No
 If yes, have they been involved in the development of this course? Yes No N/A

9. Is this course duplicative or similar to other courses offered by KCTCS? Yes No

If yes, Justification:

10. Credit / Contact Hours: 10a. Semester Credit Hours: Minimum **3** Maximum **3**
 10b. Semester Contact Hours: **60** If lab, etc., ratio of **30:1**
 contact hours to credit
 hours. (See contact/
 credit hour ratio
 chart)

11. Grading Basis: Graded- P/NP ABC/NC
 (Includes grades: (Includes grades: P,F (Includes grades: A,B,C,D,MP,F,P
 A,B,C,D,E calculates in not included in
 the GPA) the GPA) the GPA)

12. Repeat for additional credit: Yes No

(Repeat for additional credit. Check "yes" if the student may repeat the course and receive additional credit. This usually applies to special topics courses that can be repeated for additional credit if a different topic is taken. Indicate maximum amount of credit a student may earn and the total number of completions. For example, for a 1-4 credit course that may be repeated with different topics up to a maximum of 6 credits, enter 6 total credits and 6 completions.)

The number of completions should be based on the minimum number of credits Example: **Course credits 1-4; Number of total credits in course – 6;** then the total number of completions should be 6. (Total credits in course (6 credits) divided by the minimum number of course credits (1 credit) = 6 repeats.)

PeopleSoft will prevent students from enrolling when either the number of total credits is met or the number of total completions is met.

If yes, complete the following:

Total credits allowed:

Total completions:

13. Open Entry – Open Exit: Yes No

14. Course Attribute: Each course will be assigned one of the following course attributes:

DEVL (Transitional) GE (General Education) TECH (Technical) OTHR (Other)

15a. Components (Check all components that require scheduling. For each component that is checked, enter the credit hours and contact hours for each component that is checked.):

Component	Credit Hours	Contact Hours	Component	Credit Hours	Contact Hours
<input checked="" type="checkbox"/> Lecture	2	2	<input type="checkbox"/> Practicum		
<input checked="" type="checkbox"/> Laboratory	1	2	<input type="checkbox"/> Co-Op		

Clinical Discussion**OR**

15b. Integrated Components (If components are integrated, and only one component (lecture or lab) needs scheduling, rather than both lecture and lab, complete this section.)

Lecture/ Lab	Lecture Credit	Lecture Contact	Lab Credit	Lab Contact
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16. Requisites:

Pre-requisite	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	If yes, list: scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s) or consent of instructor
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Co-requisite	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	If yes, list:
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Pre-requisite	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	If yes, list:
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or

Co-requisite

17. Implementation Term (Course scheduled to begin, ex. Fall 2014):

Fall 2014 (request early implementation)

18. Proposed Course Description (Course description as it will appear in the catalog. Each statement must begin with a verb.):

Introduces students to the field of forensic and investigative sciences. Focuses on the application of the scientific method of modern science to physical evidence analysis, including trace evidence, DNA analysis, ballistics, drug analysis, fibers, fingerprints, hair, tool marks, ink and other common discovery techniques.

Course Proposal Rationale:

19. Will this course be a part of an approved curriculum/curricula? Yes No

If yes, which curriculum/curricula?

AA/AS/AAS/AFA

(Submit a New Curriculum or Revision Form)

The curriculum will not change. This course offers another choice to satisfy science general education requirements.

Course Competencies and Delivery:

20. Proposed Course Competencies/Student Outcomes (*If part of an organized curriculum, how does it relate to program competencies /outcomes? **Begin statement with a capital letter and end with a period.***):

Upon completion of this course, the student can:

1. **Describe common forensic career tracts.**
2. **Describe the role of different organizations that perform testing of forensic evidence.**
3. **Describe the role of accreditation, certification, and standardization organizations involved in forensic quality control/quality assurance.**

4. Follow all laboratory safety rules.
5. Describe basic concepts of general biology and chemistry.
6. Analyze evidence using the scientific method.

21. Course Outline (*Two-level outline required. Although courses may have more than two levels, the third level is not necessary.*)

- I. What is forensic science?
 - A. Fields and careers
 - B. Pathways
- II. Basic concepts of chemistry, biology, and physics
 - A. Chemical basis of life
 - B. Molecules of life
 - C. Cell structure, function, and communication
 - D. Genetics
 - E. Botany
 - F. Human anatomy and characteristics of body fluids
 - G. Energy, electromagnetic spectrum, and force
- III. Introduction to scientific method and measurement
 - A. Metric system and conversions
 - B. Inductive vs. deductive reasoning
 - C. Positive and negative controls
- IV. Laboratory safety
 - A. Chemical hygiene
 - B. Documentation
 - C. Hazardous materials and personal protective equipment
- V. Evidence
 - A. Collection, documentation, and chain of custody
 - B. Types of evidence
 - i. Physical and trace
 - C. Quality assurance and quality control of evidence
 - D. Laboratory methods

22. List of experiments/activities (*Courses with components other than lecture. e.g., laboratory, clinical, practicum, etc., must include a sample list of experiment topics or activities. Does not have to be all-inclusive.*):

- Differentiate between a human hair and an animal fur fiber.**
- Characterize a particle of gunshot residue.**
- Perform DNA analysis.**
- Characterize tool marks.**
- Analyze questioned documents.**
- Characterize impressions.**

23. Indicate sample suggested classroom resources for course (Should not have publishing date greater than five years.)

SUGGESTED LEARNING RESOURCES FOR THIS COURSE

Kubric and Petraco. (2014) *Forensic Science Laboratory Manual and Workbook, Fourth Edition*. CRC Press, Boca Raton, FL. ISBN: 1466514507

Seigel and Mirakovits. (2010) *Forensic Science: The Basics, Second Edition*. CRC Press, Boca Raton, FL. ISBN: 1420089021

24. Provide a rationale for using textbook/references older than five years.

N/A

25. May this course be used as an equivalent for other courses? **Yes**

No X

If yes, please list.

Signatures: Complete and submit a signature page for every proposal.

*The System Office assigns new course numbers. Contact Sydney Baseheart at Sydney.baseheart@kctcs.edu.