

# Assessment: Reporting Unit Four Column

## Forensic Science - B.S.

**Mission Statement:** The mission of the forensic science program at Eastern Kentucky University is to provide a comprehensive science-based undergraduate education that enables students to become leaders in the forensic science community.

**Vision Statement:** The Forensic Science Program at Eastern Kentucky University will inspire students to shape the future of the field using knowledge, skills, understanding and integrity.

**Top 5 Accomplishments:** The program was started in 1974 in the College of Justice and Safety. At that time, the program had one main emphasis, forensic chemistry. Since this requires a strong science base and utilization of microscopes and instrumentation, in 1985, the program moved to the Department of Chemistry. The move to chemistry has been a positive for the program. Having a physical presence in a science department, gave the program a strong science basis and has also allowed sharing of instrumentation and other resources. With the development of DNA testing in the 1990's, the program added a second option, forensic biology.

- In 2003, the program gained accreditation by the Forensic Science Education Programs Accreditation Commission (FEPAC) of the American Academy of Forensic Science (AAFS). In 2010, chemistry started the university's first 3+2 graduate program that combines all bachelors degrees, including the B.S. Forensic Science degree, with the M.S. Chemistry degree. This has helped populate upper division chemistry courses and provided a supply of graduate teaching assistants for both chemistry and forensic laboratories. The move to the New Science Building in 2011 has also been a positive. Improved laboratory and classroom spaces specifically designed for forensic courses, again set the EKU forensic program apart from those offered by other universities.

- We have made it our mission to continually review and advance our program, guaranteeing that it stays in-line with current trends and methodologies of the industry. We employ a mix of academic and forensic practitioners which prepares students for successful employment. Our internship initiative, sourcing industrial placements for students within science-related organizations, is designed to maximize their 'recruiting' potential to prospective companies. In addition, we offer a capstone experience where senior students apply skills garnered throughout the program. Students process a 'mock' crime scene, from evidence collection to expert witness testimony. Our newly renovated crime scene house provides the perfect location to stage real- to-life scenes that brings together the student's knowledge in an imaginative, exciting and challenging way.

<i>Objectives</i>	<i>Assessment Methods</i>	<i>Results/Observations</i>	<i>Meaningful Changes</i>
<p><b>16-20 PLLO 1: Critical Thinking</b> - Upon successful completion of the B.S. Forensic degree students will employ the theoretical and practical principles of chemistry, biology, physics, and mathematics to perform the work of forensic scientists. Specifically, given a specific type of evidentiary material, students will demonstrate the ability to:</p> <p>a. Recognize, collect, package and store evidence commonly found at a crime scenes</p>	<p><b>Directly related to Objective</b></p> <hr/> <p>Formative evaluation of Case Study assignment in FOR 412L. Annual review of scores by Forensic Science Program Director and faculty</p>	<p><b>Result Status:</b> Result Open-Further action needed  <b>Result/Observation Type:</b> Limitation            Due to a lack of coverage of DNA profiling in the B.S. Forensic Science curriculum, the biology option was denied accreditation. (04/18/2017)  <b>Related Documents:</b>  <a href="#">FOR331_syllabus lecture.docx</a>  <a href="#">FOR331L_syllabus lab_S17.docx</a></p>	<p><b>Meaningful Changes:</b> A new course, FOR 331 and FOR 33L, DNA Profiling was developed and taught in Spring, 2016. (04/18/2017)</p>

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<p>b. Evaluate analytical requirements and design an appropriate analytical scheme to obtain desired results</p> <p>c. Properly prepare and analyze the material to generate relevant data supported with proper quality control samples</p> <p>d. Evaluate the data and make judgments about analytical results</p> <p><b>Objective Status:</b> Active</p> <p><b>Objective Type (Control-click to select multiple):</b> 16-20 Plan, BS Forensic Science, Critical Thinking Learning Objective, Program-Level Learning Objectives (PLLO)</p>	<p>(Unique to Chemistry Option) OR Formative evaluation of DNA Final Project in FOR 331L. Annual review of scores by Forensic Science Program Director and faculty (Unique to Biology Option). Grades will be recorded as a measure of students' understanding of the course student learning outcomes and assigned competency as follows: A = Exceptional, B = Accomplished, C = Competent, D =Developing.</p> <p><b>Criterion:</b> 80% of all students completing the Case Study or Final Project will successfully demonstrate competency or greater</p> <p><b>Schedule:</b> Annually</p>	<p><b>Result Status:</b> Result Closed-No further action needed</p> <p><b>Result/Observation Type:</b> Strength</p> <p>The percentage (%) of student that are consider competent or higher (grade C or better) for Crime Scene Report in capstone experience FOR 499: 100% (10/13/2016)</p>	<p><b>Meaningful Changes:</b> Data indicates a strength to retain and no further action needed for this metric at this time. (10/13/2016)</p> <p><b>Use of Results:</b> In F2017, the percentage scoring competent or above dropped to 84% which is below our benchmark. The forensic steering committee and director discussed this at the February meeting. It was decided students need more hands-on assignments with crime scene processing. FOR 331L will capture both chemistry and biology option students. Therefore, Dr. Fredericks will create an assignment using the Crime Scene House. (03/20/2017)</p>
<p><b>16-20 PLLO 2: Communication -</b> Students will demonstrate effective written and oral communication skills, especially the ability to transmit</p>	<p><b>Directly related to Objective</b></p>	<p><b>Result Status:</b> Result Closed-No further action needed</p> <p><b>Result/Observation Type:</b> Strength</p> <p>We noted high attrition in the junior year, poor student performance in expert witness testimony, and a lack of</p>	<p><b>Meaningful Changes:</b> We moved FOR 465W to the fall semester of the senior year. By this time, students have taken every</p>

<i>Objectives</i>	<i>Assessment Methods</i>	<i>Results/Observations</i>	<i>Meaningful Changes</i>
<p>complex technical information in a clear and concise manner. Specifically, students will;</p> <ol style="list-style-type: none"> <li>Create a well-organized and properly documented case file.</li> <li>Properly communicate results and conclusions to law enforcement, scientific peers and the legal system.</li> <li>Effectively present, defend and justify results and conclusions orally and in writing.</li> </ol> <p><b>Objective Status:</b> Active</p> <p><b>Objective Type (Control-click to select multiple):</b> 16-20 Plan, BS Forensic Science, Communication Skills Learning Objective, Program-Level Learning Objectives (PLLO)</p>	<p><b>Directly related to Objective</b></p> <hr/> <p>Summative evaluation of Direct Examination Assignment in FOR 465W. Annual review of scores by Forensic Science Program Director and faculty. Grades will be recorded as a measure of students' understanding of the course student learning outcomes and assigned competency as follows: A = Exceptional, B = Accomplished, C = Competent, D =Developing.</p> <p><b>Criterion:</b> 90% of all students completing the Direct Examination Assignment will successfully demonstrate competency or greater</p>	<p>testimony on evidence exams that students had completed themselves. (04/18/2017)</p> <p><b>Related Documents:</b></p> <p><a href="#">SCHEDULE PLANNING.docx</a></p> <p><a href="#">Lecture Syllabus FOR 499 fall 2016 .pdf</a></p>	<p>forensic course. We also integrated the capstone experience, FOR 499 with FOR 465W, and made these courses a co-requisite. Students now testify on their capstone project, instead of using instructor provided data. Students are better prepared and learn to testify from carefully prepared notes. This teaches organization and planning in addition to oral and written communication. (04/18/2017)</p>
	<p><b>Schedule:</b> Annually</p> <p>Summative evaluation of Analytical Case File assignment in capstone experience FOR 499. Annual review of scores by Forensic Science Program Director and faculty. Grades will be recorded as a measure of students' understanding of the course student learning outcomes and assigned competency as follows: A = Exceptional, B = Accomplished, C = Competent, D</p>		

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	<p>=Developing.</p> <p><b>Criterion:</b> 90% of all students completing the Crime Scene Report and Analytical Case File assignment will successfully demonstrate competency or greater</p> <p><b>Schedule:</b> Annually</p>		
<p><b>16-20 PLLO 3: Professional Development</b> - Upon the successful completion of the B.S. Forensic Science degree students will demonstrate the attitudes, ethics and values that enable students to reach the highest level of achievement and personal growth. Specifically, students will;</p> <p>a. Demonstrate honesty, reliability, punctuality, motivation, work ethic, and interpersonal skills that are the hallmarks of a professional scientist.</p> <p>b. Exhibit the ethical behavior, learning skills and initiative needed for life-long learning.</p> <p><b>Objective Status:</b> Active</p> <p><b>Objective Type (Control-click to select multiple):</b> 16-20 Plan, BS Forensic Science, Program-Level Learning Objectives (PLLO)</p>	<p><b>Directly related to Objective</b></p> <p>Formative evaluation of the Academic Integrity assignment in FOR 401 (quiz and sign an Academic Integrity Contract).</p> <p><b>Criterion:</b> 100% of forensic science students will pass the quiz. Contracts will be enforced throughout the curriculum and remain on file for 12 months past graduation.</p> <p><b>Schedule:</b> Annually</p> <p>Summative evaluation of Ethics Essay on the Midterm exam in FOR 465W. Grades will be recorded as a measure of students' understanding of the course student learning</p>	<p><b>Result Status:</b> Result Closed-No further action needed</p> <p><b>Result/Observation Type:</b> Strength</p> <p>Based upon student and faculty comments, students were inadequately prepared to do library based research by their junior year. (04/18/2017)</p> <p><b>Related Documents:</b></p> <p><a href="#">SYLLABUS FOR 401 Spring 2017.docx</a></p> <p><a href="#">Library Resource Guide</a></p>	<p><b>Meaningful Changes:</b> A review of coverage of library based research across the forensic curriculum revealed coverage of this topic should occur in FOR 401 Forensic Professional Practice. Fall, 2017, in FOR 401 Forensic Professional Practice, a new library assignment was created requiring use of library databases. Clay Howard, ECU Librarian, taught a module. Finally, a forensic specific library guide was created <a href="http://libguides.eku.edu/forensics">http://libguides.eku.edu/forensics</a>. (04/18/2017)</p>

Objectives	Assessment Methods	Results/Observations	Meaningful Changes
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outcomes and assigned competency as follows: A = Exceptional, B = Accomplished, C = Competent, D =Developing.  
**Criterion:** 90% of forensic science students will successfully demonstrate competency or greater  
**Schedule:** Annually

**16-20 SLO 4: Minor in Forensic Science** - Students will exhibit a fundamental knowledge of principles and techniques pertaining to forensic science.  
**Objective Status:** Active  
**Objective Type (Control-click to select multiple):** 16-20 Plan, BS Forensic Science, Program-Level Learning Objectives (PLLO)

**Directly related to Objective**  
 The average GPA will be recorded for all students taking this minor.  
**Criterion:** 70% of students will successfully demonstrate competence (GPA of 2.5 or above) for the courses taken in the minor (as defined by the university catalog).  
**Schedule:** Annually