**Program (Major, Minor, Core): Forensic Science**  
**Department: Sociology, Anthropology, and Forensic Science**  
**College/School: Arts and Sciences**  
**Person(s) Responsible for Implementing the Plan: Richard Colignon, Department Chair; Mary Vermilion, F.S. Director**  
**Date Submitted: September 20, 2015**

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<th>Program Learning Outcomes</th>
<th>Curriculum Mapping</th>
<th>Assessment Methods</th>
<th>Use of Assessment Data</th>
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<td>What do you expect all students who complete the program to know, or be able to do?</td>
<td>Where is the outcome learned/assessed (courses, internships, student teaching, clinical, etc.)?</td>
<td>How do students demonstrate their performance of the program learning outcomes? How does the program measure student performance? Distinguish your direct measures from indirect measures.</td>
<td>How does the program use assessment results to recognize success and &quot;close the loop&quot; to inform additional program improvement? How/when is this data shared, and with whom?</td>
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### 1: Knowledge Base of Forensic Science

Students will be able to identify and explain major concepts and their categories of evidence, patterns of evidence, trends in forensic science, and the scientific basis of investigative and analytical methods.

Students will also be able to recognize the limitations of evidence and the ethical responsibilities linked to decision making.

75% of program graduates will evidence Proficiency or Mastery in the Knowledge Base of Forensic Science as demonstrated by performance on the final exams in Forensic Biology, SOC 261, and Chemical Analysis of Crime, SOC 262; 25% will evidence Minimum Proficiency.

### Level I: Knowledge and Comprehension:

In SOC 2600 (Introduction to Forensic Science), students will learn to recall data or information; understand the meaning, translation, interpolations, and interpretation of instruction and problems; and state a problem in one’s own words.

### Direct Measures:

1. Classroom work, student surveys, and questions embedded in quizzes, mid-term and final exams in required courses (SOC 2600, SOC 2610, SOC 2620) will be designed specifically to provide data clarifying whether or not the program’s objectives are being fulfilled. This data will be collected by the faculty and analyzed in conjunction with the program director to evaluate student progress toward program outcomes and to identify specific areas requiring improvement.

2. Assignments/exercises/examinations will be graded using a standardized rubric by the faculty. The results of student performance will be reported to the program director for analysis and recommendations for curriculum and/or assessment revisions.

### Indirect Measures:

1. Mid-semester student evaluations will be used to supplement course evaluations to monitor how well students are learning major concepts and the evidence used to measure those concepts.

2. Graduates of the program will be asked to complete a self-evaluative survey regarding this outcome and how the program has affected professional competency.

### Assessment results will be analyzed annually by the program director and a small group of forensic science instructors. Strengths and weaknesses will be identified and recommendations for curriculum, pedagogy and/or assessment revisions will be made to the department chair and faculty on an annual basis that will allow appropriate implementation. Responsibility for implementing the changes will be established, as will a timeline for completing the action.

Through hands-on laboratory activities, seminars, workshops, and internships, students will be able to recognize, explain and apply basic research methods in forensic science, including research design, data analysis and interpretation.

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<th>Level II: Application:</th>
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<td>Conceptualization of new situations, unprompted use of an abstraction, and application of knowledge in novel situations are taught in SOC 2610 (Forensic Biology), SOC 2620 (Forensic Chemistry), SOC 3280 (Forensic Anthropology), SOC 3590 (Law and Society), SOC 4000 (Practicum), and SOC 4610 (Death Investigation).</td>
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Analysis: The ability to separate material or concepts into component parts so organizational structure may be understood, and to distinguish facts from inferences are taught in SOC 2610 (Forensic Biology/lab), SOC 2620 (Chemical Analysis of Crime/lab), SOC 4550 (Crime Scene Investigation/lab).

Direct Measures:
The following courses in the program specifically require lab analysis and hands-on project work designed to elicit direct evidence of students’ methodological development toward this outcome: SOC 2610 (Forensic Biology/lab), SOC 2620 (Chemical Analysis of Crime/lab), SOC 4550 (Crime Scene Investigation/lab). Throughout the semester, faculty will periodically collect and review lab manuals, work sheets, and project summaries. Using a rubric as an evaluation measure, faculty will assess the student’s grasp of research design, the collection and analysis of data, interpretation of the results, and critical thinking skills. This data will be analyzed in conjunction with the program director to evaluate student progress toward program outcomes and to identify specific areas requiring improvement.

Students in the SOC 4550 (Crime Scene Investigation) course are expected to demonstrate understanding of the chain of custody of artifacts/evidence, types and instruments of analysis, and interpretation of appropriate evidence. These students will complete a graded assignment, based on a rubric, which measures competency in reading and analyzing a crime scene case/report and the ability to clearly communicate written responses to several items that assess critical thinking, including comprehension of the chain of custody, testing, instrumentation, analysis, and evaluation.

Indirect Assessment
Continual focus group meetings of students in the Forensic Science Practicum (SOC 400). Focus group discussions take place through the practicum period (100 hours typically/semester) involving all practicum students. These groups will discuss and assess the realistic and practical implementation of forensic science standards and procedures under different circumstances and across different sites.

Assessment results will be analyzed annually by the program director and a small group of forensic science instructors. Strengths and weaknesses will be identified and recommendations for curriculum, pedagogy and/or assessment revisions will be made to the department chair and faculty on an annual basis that will allow appropriate implementation.

Responsibility for implementing the changes will be established, as will a timeline for completing the action.
| 3: Critical Thinking Skills in Forensic Science.  
Students will be able to engage in skeptical inquiry, think critically and creatively, and use a scientific approach to solve problems related to behavior and mental processes. Students will also be able to recognize the holistic nature of forensic science, law, society, and ethics. | Level III:  
Synthesis:  
Students in SOC 2610 (Forensic Biology), SOC 2620 (Chemical Analysis of Crime), SOC 3280 (Forensic Anthropology), SOC 3590 (Law and Society), SOC 4000 (Practicum), and SOC 4550 (Crime Scene Investigation) courses learn to build a structure or pattern from diverse elements and assemble those elements to form a whole, with emphasis on creating a new meaning or structure.  
Evaluation: These courses also enable students to make judgments about the value of ideas or materials. | Direct Measures:  
Students in the SOC 2610 (Forensic Biology), SOC 2620 (Chemical Analysis of Crime), and SOC 4550 (Crime Scene Investigation) courses are expected to demonstrate understanding of how to use science to make fact-based decisions as they relate to the chain of custody of artifacts/evidence, types and instruments of analysis, and interpretation of appropriate evidence. These students will complete a graded assignment, based on a rubric, which measures competency in reading and analyzing a crime scene case/report and the ability to clearly communicate written responses to several items that assess critical thinking, including comprehension of the chain of custody, testing, instrumentation, analysis, and evaluation.  
Indirect Measures:  
Practicum supervisors will be asked to complete evaluation forms on the students working under their supervision. These evaluations include questions involving their perceptions of the student’s ability to write and think critically, analyze data, and communicate within the conventions of the discipline. | Assessment results will be analyzed annually by the program director and a small group of forensic science instructors. Strengths and weaknesses will be identified and recommendations for curriculum, pedagogy and/or assessment revisions will be made to the department chair and faculty on an annual basis that will allow appropriate implementation. Responsibility for implementing the changes will be established, as will a timeline for completing the action. |
| 4. Career Planning and Development. | Level IV: Engagement and application: Through the Forensic Science Practicum (SOC 4000) and other internship opportunities, students are able to test the knowledge and skills they have attained, including those surrounding ethical issues, through observation and participation in actual forensic contexts and discussions with professionals in the field. | Direct Measures: The practicum advisor facilitates placements, performance evaluations of students in their placements, and advising on further career opportunities. Indirect Measures: Continuous focus group meetings of students in the Forensic Science Practicum (SOC 4000): Focus group discussions take place through the practicum period (100 hours typically/semester) involving all practicum students. The purpose of these meetings is two-fold. First, these groups will discuss and assess the realistic and practical implementation of forensic science standards and procedures under different circumstances and across different sites. Second, due to the personal and relative nature of this program, students will be given periodic “debriefing” sessions to discuss their personal feelings or life events related to the practicum/program experience. Senior Exit Focus Groups: Focus groups with graduating seniors will be administered in April to Forensic Science BS majors. The focus groups will assess the student’s perceptions of the strengths/weaknesses of the curriculum and instructors, solicit recommendations for existing courses, suggestions for new courses, and how the courses in the program might be better sequenced and integrated. Feedback from practicum/internship supervisors will be reviewed and assessed. | Assessment results will be analyzed annually by the program director and a small group of forensic science instructors. Strengths and weaknesses will be identified and recommendations for curriculum, pedagogy and/or assessment revisions will be made to the department chair and faculty on an annual basis that will allow appropriate implementation. Responsibility for implementing the changes will be established, as will a timeline for completing the action. |
1. It is **not recommended** to try and assess (in depth) all of the program learning outcomes every semester. It is best practice to plan out when each outcome will be assessed and focus on 1 or 2 each semester/academic year. Describe the responsibilities, timeline, and the process for implementing this assessment plan.

The program director and the forensic science instructors will discuss assessment results and identify outcomes to be addressed on a rotating basis beginning with learning outcome #1 in year one, learning outcomes #2 and #3 in year two, and completing the cycle with learning outcome #4 in year three. Strengths, weaknesses, opportunities and threats (SWOT analysis) will be identified and recommendations for curriculum, pedagogy and/or assessment revisions will be made to the department chair and faculty on an annual basis. The program director will work with the Department Chair to implement the changes prior to the recurring cycle of courses.

2. Please explain how these assessment efforts are coordinated with Madrid (courses and/or program)?

   No courses in this program are taught in Madrid. Thus, this program requires no coordination with the Madrid campus.

3. The program assessment plan should be developed and approved by all faculty in the department. In addition, the program assessment plan should be developed to include student input and external sources (e.g., national standards, advisory boards, employers, alumni, etc.). Describe the process through which your academic unit created this assessment plan. Include the following:

   a. Timeline regarding when or how often this plan will be reviewed and revised. (This could be aligned with program review.)

   The Forensic Science major is a new program. The preceding plan will be evaluated on an annual basis by all forensic science faculty with additional input from any extra-departmental faculty teaching courses in the curriculum.

   b. How students were included in the process and/or how student input was gathered and incorporated into the assessment plan.

   The Forensic Science major is a new program. Student input will be gathered through several direct (Capstone evaluations, internship evaluations, licensure exams, rubrics) as well as indirect measures (surveys asking How did the program fulfill its objectives and contribute to learning? What most helped them learn? What could be improved? etc.)
c. What external sources were consulted in the development of this assessment plan?

Consultation with Kathleen Thatcher, the University’s Assessment Coordinator, a review of FEPAC (Forensic Science Education Program Accreditation Commission) accreditation standards, examination of three other Forensic Science Program learning outcomes (Fayetteville State University, University of Southern Mississippi, San Jose State University), and *Assessment Clear and Simple* (2010) by Barbara E. Walvoord were consulted in preparing this document.

d. Assessment of the manageability of the plan in relation to departmental resources and personnel

The plan as described is manageable due to the expertise and enthusiasm of the current Forensic Science faculty and the Department Chair. A very significant amount of discussion and program development went into the creation of the major and all concerned are determined to deliver a program of the highest quality with the goal of making application for FEPAC certification as soon as eligible.