

Call for Comments  
FEPAC Standards 2016

At its recent Interim Meeting, the Forensic Science Education Programs Accreditation Commission (FEPAC) conducted an in-depth five-year review of the current standards for forensic science programs as is required by the FEPAC Policies & Procedures Policy 4.1 Review of Standards. The review resulted in the following change which are now presented to you for comment. Additions/changes appear in red.

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## 1.0 INTRODUCTION

### Standard 1.5 Expansion of the Scope of Accreditation

A need may develop for FEPAC to expand the scope of forensic educational programs, which it accredits to include disciplines other than criminalistics. FEPAC would first determine if there is sufficient demand among laboratories and programs to sustain the growth of the new educational discipline. Such an expansion would require a new set of curricular and other standards, and very likely, the development of sub-committees (Working Groups) comprised of at least one member of the FEPAC and others with expertise in the given profession. Members of the Working Groups will only offer accreditation recommendations for consideration by the FEPAC. When completed and reviewed by FEPAC, the standards will be published for public comment and disseminated to programs with potential interest in accreditation.

*Rationale: As a result of the recent "Scope of Accreditation" Survey and the support expressed by many constituents of the expansion of accreditation to other forensic science disciplines, the Commission developed Standard 1.5 Expansion of the Scope of Accreditation to define the process for such expansion. The Standard does not impact program eligibility or curricular requirements.*

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## 3.0 GENERAL STANDARDS FOR ALL PROGRAMS

### 3.2 Mission, Goals, and Objectives

The forensic science program shall have a **documented and** clearly formulated mission that is a succinct representation of the program's purpose for existence, philosophies, goals, and ambitions. The mission should be appropriate to the institution and consistent with the aspiration of the forensic science community to produce a technically skilled and educated workforce. Supporting goals and educational objectives should be clearly specified, consistent with the mission, and appropriate in light of the degree(s) awarded.

*Rationale: The changes more clearly define the Standard's and FEPAC's intent and the program's need for appropriate documentation.*

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### 3.3 Planning and Evaluation

The program shall have an explicit process for:

1. evaluating and monitoring its overall efforts to fulfill its mission, goals, and objectives;
2. assessing its effectiveness in serving its various constituencies;
3. modifying the curriculum as necessary, based on the results of its evaluation activities;
4. planning to achieve its mission in the future.
5. demonstrating continuous improvement.

The program shall conduct annual analytical self-evaluation that responds to the FEPAC standards. The **documented** evaluation shall include the following three components:

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The program shall conduct annual analytical self-evaluation that responds to the FEPAC standards. The **documented** evaluation shall include the following three components:

1. A summary statement about the program's compliance with each standard that identifies both best practices and problem areas.
2. An evaluation of the success with regard to student achievement. **The program must provide documentation of how collected information is used in the evaluation and development of the program to meet its stated mission, goals, and objectives.** The evaluation system shall include at least the following elements:
  - a. Results of the student's performance in a capstone experience, forensic science standardized test results, publications, **or** reports;
  - b. Exit questionnaire or interview of graduates;
  - c. Post-graduate assessment, such as job placement surveys.
3. An operational strategy that includes:
  - a. at least two significant continuous improvement initiatives and
  - b. any remediation around potential weakness or areas needing improvement with any FEPAC Standards.

The program shall also document its record of student performance, as measured by post-graduate assessments, and any additional outcome measures the program may use to assess student progress and achievement. These records shall be maintained for at least five years after student graduation.

At least one measure of student achievement must be listed on the program's website. The measure(s) to be placed on the website are determined by the institution or program and shall be updated annually. The measures of student performance listed on the program's website must also be listed on the annual report to FEPAC.

*Rationale: The changes more clearly define the Standard's and FEPAC's intent and the program's need for appropriate documentation.*

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### **3.4 Institutional Support**

The program shall receive adequate support from the institution. As with other natural or computer science programs, the financial resources available to the program shall be sufficient to allow the program to

achieve its mission, goals, and objectives. Classrooms, laboratories, and other program facilities, including equipment and supplies, shall be adequate for the size and scope of the program. Instructional and support services for the program shall also be adequate.

The program must demonstrate the following are sufficient to allow the program to achieve its mission, goals, and objectives:

1. the financial resources the institution makes available to the program;
2. the financial resources available to the program in comparison to those available to other natural science programs at the institution;
3. the physical facilities available to the program, including classrooms, laboratories, and any other facilities the program routinely uses; and
4. the instructional and academic support services available to the program, including the library, learning center, computer center, and other major academic support services.

*Rationale: The changes more clearly define the Standard's and FEPAC's intent and the program's need for appropriate documentation.*

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### **3.5 Faculty**

All faculty members shall be appropriately qualified, by education and experience, to implement the instructional program. ~~The scientific and educational capabilities of the faculty should be distributed over the major areas of the program.~~ Forensic science faculty includes any faculty or instructional staff member who teaches a forensic science course or a support course designed specifically for the program.

1. ~~The scientific and educational capabilities of the faculty should~~ shall be distributed over the major areas of the program. The number of faculty members shall be sufficient to ensure regular offerings of all courses needed for the degree program. Students shall not experience delays in graduating because of lack of course offerings.
2. Faculty members with working experience in a forensic science laboratory are preferred. However, over reliance on part-time or adjunct faculty members may be deemed inadequate institutional support.
3. Full-time faculty teaching in graduate programs shall have demonstrated research activity appropriate to their institution's mission.
4. Full-time faculty members shall oversee all coursework and ensure its applicability to the program's mission, goals, and objectives.
5. The following requirements apply separately to each degree program (e.g. B.S., M.S.)
  - a. At least 50% of the full-time forensic science faculty shall have an appropriate doctoral degree.
  - b. At least 50% of the forensic-science credit hours in a program (4.1.1c / 4.1.1d or 4.1.2c / 4.1.2d for undergraduate programs and 5.2 for graduate programs) must be taught by full time faculty.
6. The program shall have well-defined policies and procedures to recruit, appoint, and promote qualified faculty, to evaluate the competence and performance of faculty, and to support the professional development and advancement of faculty.

*Rationale: The changes more clearly define the Standard's and FEPAC's intent.*

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### **3.67 Student Support Services and Advisement**

The program shall provide adequate student support services including mentoring, academic advising, and career and placement services. The program shall also provide an environment and culture that are congruent with professional standards and behaviors.

Student must be advised of specific curricular requirements of individual disciplines. For example, if pursuing a career as a forensic DNA analyst, nine cumulative hours of course work in biochemistry, molecular biology, and genetics is required; course work in population genetics and statistics is desirable. Employers will require documentation, such as a syllabus, for course work with other titles.

*Rationale: The Standard change provides a better understanding of student advisement regarding curricular needs. Because student support and advisement follows recruiting, the Standard was moved from 3.3.6 to 3.7 to follow Recruiting and Admissions Practices Standard 3.7 to 3.6*

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### **3.76 Recruiting and Admissions Practices, Academic Calendars, Catalogs, Publications, Grading, and Advertising**

The program shall have policies and procedures for student recruitment and admissions that locate and select qualified individuals who have the educational prerequisites and the interest and motivation to pursue careers in forensic science. These policies and procedures shall identify the scientific background necessary and clearly define the expectations for admission to, continuation in, and completion of the program. All statements made about the program in any promotional advertising, catalogs, or other institutional publications shall be accurate. ~~In addition, During the recruitment and admissions process, the student shall be advised informed~~ of the typical suitability requirements particular to employment in the field. Specifically, students should be advised that background checks similar to those required for law enforcement officers are likely to be a condition of employment (Reference: NIJ Report NCJ 203099 – “Qualifications for a Career in Forensic Science,” pp.7-10).

~~If pursuing a career as a forensic DNA analyst, nine cumulative hours of course work in biochemistry, molecular biology, and genetics is required; course work in population genetics is desirable. Employers will require documentation, such as a syllabus, for course work with other titles.~~

The program shall ensure that all students receive timely and accurate information about the academic calendar, required coursework and degree requirements, grading policies and satisfactory academic progress, and other relevant academic policies.

All application, admission, and degree-granting requirements and regulations shall be applied equitably to individual applicants and students regardless of age, sex, race, disability, religion, or national origin.

*Rationale: Refer to Standard 3.7 Student Support Services*

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### **3.10a Interaction with Forensic Science Laboratories**

The program shall demonstrate formal, ~~regular~~ **biennial** interaction with at least one operational forensic science laboratory. This interaction must be on-going and documented. This relationship must take the form of two or more of the following:

1. Student internships.
2. Training opportunities where the program provides instruction to laboratory personnel.
3. Faculty serving on laboratory advisory committees.
4. Coordinated research initiatives between the laboratory and academic program.
5. Professional activities coordinated between the laboratory and the academic program.
6. Laboratory personnel serving in an advisory capacity to the academic program.

*Rationale: The Commission determined “regular” to be ambiguous and “annual” possibly too restrictive. Biennial: occurring [at least] every other year.*

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### **3.10b Interaction with Forensic Science Organizations**

The program shall demonstrate formal, ~~regular~~ biennial interaction with at least one professional forensic science organization. Interaction must take the form of two or more of the following:

1. Faculty participation at a local, regional, national, or international forensic science conferences.
2. Student attendance or participation at local, regional, national, or international forensic science conferences.
3. Service activities to or for a professional organization.
4. Hosting an educational, training, or outreach program with an external professional organization.

*Rationale: The Commission determined “regular” to be ambiguous and “annual” possibly too restrictive. Biennial: occurring [at least] every other year.*

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## **4.0 UNDERGRADUATE PROGRAM STANDARDS**

### **4.2 Program Director**

The program director shall be a full-time faculty member at the academic institution, appropriately qualified to meet the program’s stated mission, goals, and objectives, and to provide leadership in forensic science education, research, and other scholarly activities so that students are adequately prepared for forensic science practice. The program director shall meet the following requirements:

1. Minimum of a Master’s or professional degree appropriate for a forensic science program, and at least three years relevant experience as a forensic-science practitioner in an operational forensic science laboratory setting (~~the three years not including any training period~~); OR earned doctorate in an appropriate discipline, and three years experience as an academic forensic scientist that includes appropriate educational, research, and service contributions to forensic science
2. Documented management experience appropriate to the duties assigned to the position.

*Rationale: The Commission realizes that training in an operational forensic science laboratory contributes to relevant experience and prepares the individual for a career as a practitioner.*

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## **5.0 Graduate Program Standards**

### **5.2.1a Core Forensic Science Topics**

The following topics must be part of the curriculum:

1. Crime scene investigation
2. Physical evidence concepts
3. Law/science interface
4. Ethics and professional responsibilities
5. Quality assurance

6. Analytical chemistry and instrumental methods of analysis
7. Drug chemistry/toxicology
8. Microscopy and materials analysis
9. Forensic biology
10. Pattern evidence

The emphasis on each topic should be appropriate in light of the degrees awarded. However, a minimum of ~~10~~ **nine** instructional hours must be spent on each topic.

Normally, a topic will involve multiple class meetings and may involve multiple learning modalities, such as lectures, laboratories, and demonstrations. Evaluation of student mastery of each topic may be done through a number of modalities, but the topic material must be specifically addressed in a syllabus and assessed.

*Rationale: The Commission realizes that for many programs 10 instructional hours is difficult to schedule and, further, the topics required could be sufficiently covered within nine hours of instruction. Nine instructional hours under most models could be covered in three hour classes over a three-week period.*

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### **5.2.1b Courses in Specialized Areas**

The curriculum must include graduate-level science courses appropriate ~~to the~~ **for specialization, track(s) and/or concentration(s) offered by that institution.** For example, courses covering the topics of molecular biology and population genetics, advanced analytical chemistry, toxicology, and materials analysis may be appropriate.

**Specialized courses offered may be specific for a track(s) and/or concentration(s) offered by that institution, if applicable.**

*Rationale: The changes to this Standard are intended to better clarify the requirement of specialization coursework. All programs are required to provide graduate-level courses appropriate for specialization.*

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### **5.2.1c Graduate Seminar**

A formal seminar, ~~which is a requirement of a course,~~ presented by invited experts, faculty, and/or students covering topics such as published work, original research, and other relevant topics must be ~~offered.~~ **included within the curriculum as a requirement of a course.**

*Rationale: The edits to the Standard are intended to clarify the requirement.*

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## **5.3 Program Director**

The program director shall be a full-time faculty member at the academic institution appropriately qualified by academic experience, research qualifications, and background in program administration to meet the program's stated mission, goals, and objectives, and to provide leadership in forensic science education, research, and other scholarly activities so that students are adequately prepared for forensic science practice. The program director shall meet the following requirements:

1. Minimum of an earned Doctorate degree appropriate for a forensic science program.
2. ~~AND a~~At least five years relevant experience as an academic forensic scientist that includes appropriate educational, research and service contributions to forensic science; OR at least five years relevant experience as a forensic-science practitioner, not including any training time in an operational forensic science laboratory setting
3. Documented research experience in a forensic science discipline or in methods and techniques adapted, validated and implemented by the forensic science community,
4. Documented management experience appropriate to the duties assigned to the position.

*Rationale: The edit to the Standard is intended to clarify that all Program Directors at the graduate level must have both a Doctorate and five years experience in either academia or as a practitioner.*