

**FORENSIC SCIENCE EDUCATION PROGRAMS ACCREDITATION COMMISSION
(FEPAC)**

**DIGITAL EVIDENCE PROGRAMS
GRADUATE STANDARDS**

| Original | Proposed |
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| <p>5.0 Graduate Program Standards A graduate forensic science program shall provide advanced education in the scientific and laboratory problem solving skills necessary for success in a modern forensic laboratory. Such a program shall combine rigorous scientific and laboratory training with exposure to the breadth of forensic science disciplines, including forensic science practice, law enforcement, and ethics. The graduate forensic science program shall include teaching and learning, research, and service.</p> | <p>5.0 Graduate Program Standards A graduate forensic science program shall provide advanced education in the scientific, technical and/or laboratory problem solving skills necessary for success in a modern forensic laboratory. Such a program shall combine rigorous scientific, technical and/or laboratory training with exposure to the breadth of forensic science disciplines, including forensic science practice, law enforcement, and ethics. The graduate forensic science program shall include teaching and learning, research, and service.</p> |
| <p>5.1 Graduate Admission Requirements A bachelor’s degree in a forensic or natural science, computer science, computer electronic or electrical engineering, information systems or information technology (or its equivalent coursework in a relevant field) shall be required for entrance into the appropriate graduate forensic science program. Undergraduate work should be evaluated to determine if the applicant has sufficient scientific or technical background to successfully complete the graduate program.</p> | <p>5.1 Graduate Admission Requirements For forensic science programs with an emphasis in biology and/or chemistry, a bachelor’s degree in a forensic or natural science (or its equivalent coursework in a relevant field) shall be required for entrance into the graduate forensic science program. A process shall be in place to evaluate undergraduate work to determine if the applicant has sufficient scientific background to successfully complete the graduate program.</p> <p>For forensic science programs with an emphasis in digital evidence, a bachelor’s degree shall be required for entrance into the graduate forensic science program. A process shall be in place to evaluate undergraduate work to determine if the applicant has sufficient technical background to successfully complete the graduate program.</p> <p>An exception to the bachelor’s degree requirement may include a bachelor’s degree/master’s degree linked or contiguous program. These programs are sometimes referred to as a 4+1, 3+2, or 5 year program. The program must have well defined admission requirements and defined policies for dual enrollment. With a linked or contiguous program, a student should be able to complete the</p> |

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| | bachelor’s degree without completing the master’s degree. |
| <p>5.2 Curriculum The graduate program in forensic science shall offer a coherent curriculum that reflects the mission and goals of the program.</p> | <p>5.2 Curriculum The graduate program in forensic science shall offer a coherent curriculum that reflects the mission and goals of the program.</p> |
| <p>5.2.1 General Curricular Requirements The curriculum shall, at a minimum, ensure that each student:</p> <ol style="list-style-type: none"> 1. develops an understanding of the areas of knowledge that are essential to forensic science; 2. acquires skills and experience in the application of basic forensic science concepts and of specialty knowledge to problem solving; 3. be oriented in professional values, concepts, and ethics; and, 4. demonstrates integration of knowledge and skills through a capstone experience, such as a formal, objective tool, (e.g., the American Board of Criminalistics Forensic Science Aptitude Test) or other comprehensive examination, thesis, and/or research projects. <p>The program shall define clear learning objectives for each discrete component of the curriculum. The program shall have clear procedures for assessing and documenting each student’s progress toward the fulfillment of these learning objectives and toward readiness for forensic science practice.</p> <p>The program shall provide students with the basic knowledge necessary for effective testimony as an expert witness, and each student shall participate in practical experiences where they will render expert testimony (e.g., moot court).</p> <p>For general forensic science programs with emphasis in chemistry, biology, or toxicology,</p> | <p>5.2.1 General Curricular Requirements The curriculum shall, at a minimum, ensure that each student:</p> <ol style="list-style-type: none"> 1. develops an understanding of the areas of knowledge that are essential to forensic science; 2. acquires skills and experience in the application of basic forensic science concepts and of specialty knowledge to problem solving; 3. be oriented in professional values, concepts, and ethics; and, 4. demonstrates integration of knowledge and skills through a capstone experience such as a thesis, research project and/or formal, objective tool (e.g., the American Board of Criminalistics Forensic Science Aptitude Test or other comprehensive examination). <p>The program shall define clear learning objectives for each discrete component of the curriculum. The program shall have clear procedures for assessing and documenting each student’s progress toward the fulfillment of these learning objectives and toward readiness for forensic science practice.</p> <p>The program shall provide students with the basic knowledge necessary for effective testimony as an expert witness, and each student shall participate in practical experiences where they will render expert testimony (e.g., moot court).</p> <p>For forensic science programs with an emphasis in biology and/or chemistry, standard 5.2.2</p> |

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| standards 5.2.1a-d should be followed. For forensic science programs with an emphasis on digital evidence, standards 5.2.2a-d should be followed. | should be followed. For forensic science programs with an emphasis in digital evidence, standard 5.2.3 should be followed. |
| <p>5.2.1a-d Specific Topic Requirements within the Curriculum</p> <p>The curriculum shall include the topics described in standards 5.2.1a-d for traditional forensic science programs.</p> | <p>5.2.2 Specific Requirements within the Curriculum for Forensic Science Programs with an emphasis in biology and/or chemistry</p> <p>The curriculum shall include the following:</p> |
| <p>5.2.1a Core Forensic Science Topics The following topics must be part of the curriculum:</p> <ol style="list-style-type: none"> 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 <p>The emphasis on each topic should be appropriate in light of the degrees awarded. However, a minimum of nine instructional hours must be spent on each topic.</p> <p>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 conducted through a number of modalities, but the topic material must be specifically addressed in a syllabus and assessed.</p> | <p>5.2.2a Core Forensic Science Topics The following topics must be part of the curriculum:</p> <ol style="list-style-type: none"> 1. Crime scene investigation 2. Law/science interface 3. Ethics and professional responsibilities 4. Quality assurance 5. Analytical chemistry and instrumental methods of analysis 6. Drug chemistry/toxicology 7. Microscopy and materials analysis 8. Forensic biology 9. Pattern evidence <p>The emphasis on each topic should be appropriate in light of the degrees awarded. However, a minimum of nine instructional hours must be spent on each topic.</p> <p>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 conducted through a number of modalities, but the topic material must be specifically addressed in a syllabus and assessed.</p> |
| 5.2.1b Courses in Specialized Areas | 5.2.2b Courses in Specialized Areas |

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GRADUATE STANDARDS**

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| <p>The curriculum must include graduate-level science courses appropriate for specialization. For example, courses covering the topics of molecular biology and population genetics, advanced analytical chemistry, toxicology, and materials analysis may be appropriate.</p> <p>Specialized courses offered may be specific for a track(s) and/or concentration(s) offered by that institution, if applicable.</p> | <p>The curriculum must include graduate-level science courses appropriate for specialization. For example, courses covering the topics of molecular biology and population genetics, advanced analytical chemistry, toxicology, and materials analysis may be appropriate.</p> <p>Specialized courses offered may be specific for a track(s) and/or concentration(s) offered by that institution, if applicable.</p> |
| <p>5.2.1c Graduate Seminar A formal seminar, presented by invited experts, faculty, and/or students covering topics such as published work, original research, and other relevant topics must be included within the curriculum as a requirement of a course.</p> | <p>5.2.2c Graduate Seminar A formal seminar, presented by invited experts, faculty, and/or students covering topics such as published work, original research, and other relevant topics must be included within the curriculum as a requirement of a course.</p> |
| <p>5.2.1d Research Each student is required to complete an independent research project. The research project shall culminate in a thesis or written report of publishable quality. The academic program must have written guidelines for the format of the thesis/report and for the evaluation of the oral presentation.</p> <p>Each student is required to have a committee of at least three individuals who are responsible for mentoring the project. One member of the student's research committee must be a full-time faculty member of the program. The other two members can include full- or part-time faculty, forensic practitioners, and others with specialized knowledge. At least one member of the committee must be external to the department sponsoring the research. In addition, each student must present the results of the work orally, in a public forum, before the committee. Presentations at professional meetings do not meet this requirement.</p> <p>The research shall be conducted in an environment conducive to research and scholarly</p> | <p>5.2.2d Forensic Science Research or Capstone Each student is required to complete an independent research or capstone project. The research/capstone project shall culminate in a thesis or written report of publishable quality. The academic program must have written guidelines for the format of the thesis/report and for the evaluation of the oral presentation.</p> <p>Each student is required to have a committee of at least three individuals who are responsible for mentoring the project. One member of the student's research committee must be a full-time faculty member of the program. The other two members can include full- or part-time faculty, forensic practitioners, and others with specialized knowledge. At least one member of the committee must be external to the department sponsoring the research. In addition, each student must present the results of the work orally, in a public forum, before the committee. Presentations at professional meetings do not meet this requirement.</p> <p>The research shall be conducted in an environment conducive to research and scholarly</p> |

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| <p>inquiry and shall provide the opportunity for faculty and students to contribute to the knowledge base of forensic science, including research directed at improving the practice of forensic science.</p> | <p>inquiry and shall provide the opportunity for faculty and students to contribute to the knowledge base of forensic science, including research directed at improving the practice of forensic science.</p> |
| <p>5.2.2a-d Specific Topic Requirements within the Curriculum for Digital Evidence Programs</p> <p>The curriculum shall include the topics described in standards 5.2.2a through 5.2.2d.</p> | <p>5.2.3 Specific Requirements within the Curriculum for Forensic Science Programs with an emphasis in digital evidence</p> <p>The curriculum shall include the following:</p> |
| <p>5.2.2a Core Forensic Science Topics The following topics must be part of the curriculum:</p> <ol style="list-style-type: none"> 1. Crime scene investigation 2. Physical evidence concepts 3. Law/science evidence 4. Ethics and professional responsibilities 5. Quality assurance 6. Forensic biology 7. Pattern evidence 8. Hardware forensic concepts 9. Software forensic concepts 10. Network forensic concepts | <p>5.2.3a Core Forensic Science Topics The following topics must be part of the curriculum:</p> <ol style="list-style-type: none"> 1. Crime scene investigation 2. Law/science evidence 3. Ethics and professional responsibilities 4. Quality assurance 5. Pattern evidence <p>The emphasis on each topic should be appropriate in light of the degrees awarded. However, a minimum of nine instructional hours must be spent on each topic.</p> <p>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 conducted through a number of modalities, but the topic material must be specifically addressed in a syllabus and assessed.</p> |
| <p>5.2.2b Courses in Specialized Areas</p> <p>The curriculum must include graduate-level science courses appropriate to the specialization, track(s), and /or concentration(s) offered by that institution (e.g., network forensics, personal electronic device (PED) forensics, embedded device forensics, incident response, reverse engineering, multimedia forensics, legal issues, information security, operational management).</p> | <p>5.2.3b Courses in Specialized Areas</p> <p>The curriculum must include graduate-level courses appropriate to digital forensics and should contain the following concepts or topics:</p> <ol style="list-style-type: none"> 1. Hardware forensics 2. Software forensics 3. Network forensics 4. Mobile device forensics |

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| <p>An advanced computer and network forensics course that requires a graduate course as prerequisite must be completed.</p> | <p style="text-align: center;">In addition, specialized courses may be offered, if applicable, in topics to include embedded device forensics, incident response, reverse engineering, multimedia forensics, information security, and/or operational management.</p> <p style="text-align: center;">An advanced digital forensics course that requires a graduate course as a prerequisite must be completed.</p> |
| <p>5.2.2c 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.</p> | <p>5.2.3c 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.</p> |
| <p>5.2.2d Research Each student is required to have a committee of at least three individuals who are responsible for mentoring the project. One member of the student’s research committee must be a full-time faculty member of the program. The other two members can include full- or part-time faculty, forensic practitioners, and others with specialized knowledge. At least one member of the committee must be external to the department sponsoring the research. In addition, each student must present the results of the work orally, in a public forum, before the committee. Presentations at professional meetings do not meet this requirement.</p> <p>The research shall be conducted in an environment conducive to research and scholarly inquiry and shall provide the opportunity for faculty and students to contribute to the knowledge base of forensic science, including research directed at improving the practice of forensic science.</p> | <p>5.2.3d Digital Evidence Research or Capstone Each student is required to complete an independent research or capstone project. The research/capstone project shall culminate in a thesis or written report of publishable quality. The academic program must have written guidelines for the format of the report and for the evaluation of the oral presentation.</p> <p>Each student is required to have a committee of at least three individuals who are responsible for mentoring the project. One member of the student’s research committee must be a full-time faculty member of the program. The other two members can include full- or part-time faculty, forensic practitioners, and others with specialized knowledge. At least one member of the committee must be external to the department sponsoring the research. In addition, each student must present the results of the work orally, in a public forum, before the committee. Presentations at professional meetings do not meet this requirement.</p> |

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| | <p>The research/capstone project shall be conducted in an environment conducive to scholarly inquiry and shall provide the opportunity for faculty and students to contribute to the knowledge base of forensic science, including research/capstone projects directed at improving the practice of forensic science.</p> |
| <p>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 students are adequately prepared for forensic science practice. The program director shall meet the following requirements:</p> <ol style="list-style-type: none">1. a minimum of an earned Doctorate degree appropriate for a forensic science program;2. 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; and4. documented management experience appropriate to the duties assigned to the position. | <p>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 students are adequately prepared for forensic science practice. The program director shall meet the following requirements:</p> <ol style="list-style-type: none">1. a minimum of an earned Doctorate degree appropriate for a forensic science program;2. 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; and4. documented management experience appropriate to the duties assigned to the position. |