



Anthropology Section - 2016

A116 Students in the Forensic Laboratory: Fostering Education While Maintaining Quality

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After attending this presentation, attendees will have a good understanding of a model for integrating student participation into the forensic laboratory without compromising the probative value of evidence.

This presentation will impact the forensic science community by serving as a tested model for educators seeking to integrate field and laboratory experience into their curriculum, thereby providing a new generation of forensic scientists with invaluable practical experience.

Students and educators at the graduate and undergraduate level colloquially report a lack of internship opportunities in the forensic anthropology laboratory. The fear of compromising the probative value of evidence and irregular and unpredictable caseloads are the most typically cited arguments against internship programs. These fears are not supported by documented courtroom challenges to admissibility and the practice of limiting participation presents a problem for a field that demands experience in order to progress professionally. A thoughtfully designed internship program may provide practical experience without necessitating a predictable caseload and without compromising evidentiary integrity.

The Metropolitan State University of Denver Human Identification Laboratory (MSUD-HIL) offers forensic anthropological search, recovery, and analysis services to medicolegal professionals throughout Colorado. Colorado's complex geography and the changes to biological evidence that occur in these diverse ecozones present challenging educational prospects for search and recovery as well as laboratory analyses not afforded by most classroom settings. In an effort to more effectively process vast outdoor scenes and provide students with the practical laboratory experience necessary for professional development, credited internships are offered to undergraduate students who have demonstrated exceptional academic performance and an interest in pursuing a career in forensic science. The model at MSU Denver utilizes a rigorous Student Quality Assurance (SQA) program in combination with direct supervision of student activities. It offers an alternative whereby budding professionals can gain the practical experience necessary to be successful while maintaining the probative value of evidence and enhancing the investigation.

Introducing an educational platform to scene processing may be beneficial to all involved, but presents a unique set of challenges necessitating foresight, planning, and a strict Quality Assurance (QA) program with the ultimate goal of maximizing the information recovered while maintaining the probative value of evidence. The MSUD-HIL program utilizes a multipronged training and competency testing system specifically designed for student participation, which operates under the laboratory's primary QA protocols. The SQA is hierarchical in nature and devised of a series of benchmarks attained by the successful completion of internal and external training and testing. The level of student participation both in the field and in laboratory analysis is dictated by the certification level achieved. Certification levels are represented by a color-coded system so that qualified (and more importantly, unqualified) students may be readily identified in the field or laboratory, allowing supervisors to easily manage students and rapidly delegate tasks to appropriately qualified individuals.

The simple use of prominently displayed color-coded identification cards has demonstrated the added benefits of self-management and proactive training by student interns. Additionally, students tend to strive to attain higher qualifications with the assistance of more highly certified interns. This affords training experience to more skillful interns while reducing the burden placed on the laboratory director, engenders an ethos of active ongoing education, and demonstrates the importance of QA in the forensic laboratory. SQA is maintained through a series of standardized tests independently assessed by two members of laboratory management at each stage of certification. This ensures that standards are maintained while fostering a multidisciplinary, multi-perspective teaching environment. SQA in the MSUD-HIL required systematic and step-by-step processes, including development of the SQA framework within the primary QA framework, certification manuals, training and commitment among laboratory staff, internal assessment, and integration of SQA programs into the laboratory's annual action plans. Once these controls are in place, students make valuable contributions to any



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laboratory while reaping the benefits of practical experience. Medicolegal agencies retain the right to deny student participation, but the MSUD-HIL has had few cases where this right has been invoked. Most medicolegal agencies involved with cases where student participation was allowed have praised the students and the laboratory for professional conduct and frequent successful results. Thus, student participation with a rigorous SQA program in place can increase success rates and benefit all agencies involved.

Student Interns, Quality Assurance, Forensic Laboratory