



Criminalistics Section – 2006

B147 Engaging College Freshman in Forensic Science Education

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After attending this presentation, forensic science educators will understand the importance of engaging students from the start of their college career through curriculum development.

This presentation will impact the forensic community and/or humanity by allowing forensic science educators to reevaluate their level of interaction with incoming freshman and to demonstrate the potential advantages of early intervention.

Educating the forensic scientists of the future is a real challenge. Students must possess a strong science background, superior communication skills (oral and written), and a good working knowledge and appreciation for forensic science. Over twenty years ago the Council on Forensic Science Education (COFSE) formed in order to address these issues. At the time there were no guidelines or recommendations for universities planning on offering Forensic Science Programs. As a result, a degree in Forensic Science did not mean the same thing from one university to the next. For example, one program might be based out of a traditional science department, while at another university a program might be based out of criminal justice department and contain virtually no science content.

The lack of consistency in the forensic science degree led employers to shy away from hiring forensic science graduates preferring to hire graduates with degrees in Chemistry or Biology. COFSE paved the way by pulling together professors from public and private universities offering both undergraduate and graduate programs in Forensic Science. They discussed issues of curriculum development and improving academics in forensic science education. More recently a Technical Working Group on Forensic Science Education and Training, (TWGED), formed to generate recommendations for program standards. TWGED was made up of forensic science educators (many of whom were already COFSE members), laboratory directors and attorneys. Wisely, TWGED also sought to involve "end users" into the discussion. The result was a June 2004 National Institute of Justice publication (NCJ 203099). The document, "Education and Training in Forensic Science: A Guide for Forensic Science Laboratories, Educational Institutions, and Students," was a great reference that started to tackle some of the more difficult issues. It defined what "the model candidate" was and provided some sample curricula for both undergraduate and graduate forensic science programs. Unfortunately, once the report was completed, so was TWGED's mandate.

To carry on the legacy of TWGED the American Academy of Forensic Sciences (AAFS) created an accreditation body known now as the Forensic Science Education Programs Accreditation Commission (FEPAC). This body adopted the TWGED recommendations with minor revisions to serve as the guidelines for accreditation. For new programs, the guidelines can act as a framework upon which they can begin to build. Existing programs must look to see what modifications need to be made to bring them into compliance with the standards.

While these changes have brought monumental improvement to forensic science education, they have done little to assuage the culling of the incoming crop of freshman hit by a first year encompassing Biology, Chemistry, and Calculus. For the most part forensic science educators take a pragmatic approach to high attrition rates. Some universities have even started taking advantage of them by adjusting the fall and spring laboratory sections of Biology and Chemistry to be combined and only be offered during the spring. The dramatic size reduction that occurs between the first and second semester allows a more manageable lab section size.

Since forensic science is such an applied science, some forensic science educators do not even interact with their students until they have completed all of the science prerequisite courses. It is the author's contention that this is a grievous error. This is not just based on academics. Because of the interrelationship with the law, students are now held to a higher ethical standard. For some, college is their first true experience of freedom. It is during this vulnerable time that it is important to remind them of the extent of background searches that most employers will use.

The author has found that the best way to do this is to create a special course required of all incoming forensic science freshman. The one credit course is entitled "survey of forensic science" and is only taught by the Program Director. This allows incoming freshman to form a relationship with the person that should be guiding them in the program during their first year instead of during their third year if they have even made it that far. The course highlights different areas of the NIJ publication (NCJ 203099), clarifies the order and structure of the program, and allows students to get a smattering of all of the different subdivisions of Forensic Science. This later point also serves to stimulate the student, demonstrating the practical application of the science they are about to learn.

Student Engagement, Forensic Science, Education