

Blended Learning Mixes Methods

Like the self-directed online approach to training because of the freedom it offers, but miss the opportunity to interact with other students and instructors? Like the give-and-take of a classroom, but lack the time to take a week away from work? Then maybe it's time to try blended learning.

In several of its National Institute of Justice (NIJ)-funded training programs, the National Forensic Science Technology Center (NFSTC) uses the blended learning approach, offering participants the opportunity to apply, do prerequisite work, access supplemental material and complete assessments online, followed by a shorter period of classroom instruction. Blended learning also may incorporate, at various times, self-paced paper-based training, the opportunity to view videos of previous classroom instruction and portable CD-ROM instruction that does not require an Internet connection. Basically, blended learning applies an integrated instructional approach to training that features multiple methods of delivering instruction.

"Blended learning follows a nontraditional format instead of the 'stand up and deliver' approach," says Eileen Fynan, NFSTC training operations manager. "By blending various methods, you have greater potential for outreach and can reach a larger audience at a lower cost. Through delivery of self-paced components within a learning management system (LMS), individuals benefit from a flexible and convenient learning environment but still have the opportunity to interact with other learners. Our model has been to provide a theoretical knowledge base before participants come together, which enables the classroom portion to be more practical and hands on."

NFSTC is in the process of developing a new blended learning curriculum on medicolegal death investigations, and recently implemented a successful course on the essentials of crime scene investigation. The center has been evolving and refining the process for several years, starting with the development of an intensive and extensive DNA curriculum that used focus groups, review panels and technical writing support to help devise the

curriculum, which is currently available on NIJ's DNA.gov site. Fynan explains that NIJ was extremely pleased with the final product, but suggested a shift to smaller, modular trainings that could be developed more quickly than the two years it took to create the DNA training.

Prior to the classroom instruction portion of a blended learning training at NFSTC, students complete all online activities and demonstrate mastery of the subject matter at 80 percent or greater. This ensures that each student comes into the classroom with the same baseline knowledge, according to Lori Sullivan, NFSTC instructional design coordinator. This avoids having participants whose levels of experience and knowledge vary so greatly that the instructor has to adjust the training on the fly, and activities generally run more smoothly, she says. NIJ and NFSTC have offered a variety of blended learning courses on various topics, such as DNA analysis, digital evidence and firearms examination. Although enrollment in the hands-on portion of these trainings is limited by funding, the Web-based portions remain online, available to a broader audience that can take this portion of the training at their leisure.

"More and more, NIJ and the Bureau of Justice Assistance are looking to leverage existing materials and create blended learning programs through a minimum of new curriculum development," says Fynan. "After the funding for a particular project ends, the online portions remain sustainable and available. Sometimes these components can also be repurposed into other training events."

Blended learning courses created and developed by NFSTC are listed below:

- **Principles of Forensic DNA for Officers of the Court.** Offered via CD-ROM through the National Criminal Justice Reference Service (NCJRS) at <http://www.ncjrs.gov/App/Topics/SearchResults.aspx?TopicName=DNA&topicID=118&txtKeywordSearch=principles> and via the Internet at <http://www.dna.gov/training/otc/>. Originally presented to judges, prosecutors and defense attorneys via Web-based delivery and workshops.

- **Using and Presenting Digital Evidence in the Courtroom.** Available through NCJRS at <http://www.ncjrs.gov/App/shoppingcart/ShopCart.aspx?item=NCJ%20215093>. Delivered as a companion piece to a video-recorded mock digital evidence trial.
- **DNA Analyst Training Program.** Available at <http://www.dna.gov/training/dna-analyst-program/>. Delivered as theoretical Web-based forensic DNA training to 809 practitioners in 43 geographically diverse states. Training formats included instructor-led lectures and workshops as well as comprehensive theoretical- and practical-based training for 40 entry-level DNA analysts from four different public agencies.
- **Firearm Examiner Training.** Available at <http://www.ojp.usdoj.gov/nij/training/firearms-training/>. Used by various agencies in conjunction with mentor-based agency training.
- **Pattern Evidence Trainings.** Delivered via the password-protected NFSTC online learning system (NOLS), supplemented by onsite instruction. NOLS serves as a virtual community base for students throughout each program and provides course information, resources, discussion forums, communication tools, surveys and autograded testing for each course.

- **Latent Print Examiner Training I.** A cohort group progressed through 12 courses over a 10-month timeframe, with online activities assigned in between course sessions.
- **Tenprint Fingerprint Training.** A cohort group progressed through four courses over an eight-month timeframe, with online activities assigned in between course sessions.
- **Footwear/Tire Track Examiner Training.** A cohort group progressed through four courses over a four-month timeframe, with online activities assigned in between course sessions.
- **Latent Print Examiner Training II.** A cohort group progressed through 11 courses over an eight-month timeframe, with online activities assigned in between course sessions.
- **Essentials of Crime Scene Investigation.** Currently ongoing. Delivered via NOLS. Includes 16 hours of online prerequisite training and 24 hours of practical-based onsite training.

For more information, visit <http://www.nfstc.org/meetings/>.

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