

EXECUTIVE SUMMARY: *(State in layman's terms the application's broad, long-term objectives and specific aims, making reference to the potential public benefits of the project for California.)*

The application of biotechnology techniques has become critical for the analysis of evidence. Applications include identifying suspects using DNA left at crime scenes, exonerating the innocent, and identifying mass disaster victims. Recent terrorist attacks have also generated extensive interest in biometrics. Biometrics is the measurement of physical characteristics, such as fingerprints, DNA, or retinal patterns, for use in verifying the identity of individuals. Advances in DNA technology have played a pivotal role in identification of both the living and the dead and can be key to solving violent crime and investigating human rights violations. Biometric tools are fundamental not only in forensic casework but also in personal identity, industrial, medical and military security applications. **In spite of the importance of biometrics, there are no undergraduate biometrics courses at any CSUs.** Growing demand for biometrics knowledge¹, products², funding³ and implementation⁴, supports biometrics course development. The long-term goal of the grant is to develop a CSU-collaborative, undergraduate interdepartmental training and research program with contributions from different departments, campuses and forensic laboratories. As a part of this goal, this proposal aims to develop and deliver a CSU undergraduate course on Forensic Biometrics. **This hands-on lab class is a missing course requirement for accreditation of the forensic science programs.** Course development will be conducted in conjunction with two departments from two colleges and two campuses and will include external guest speakers and other established collaborators. Three main benefits of this project are that 1) The SJSU FS Bio and Chem programs will move closer to accreditation, 2) Materials will be freely shared with all high schools, community colleges, universities, and FS labs by web posting and 3) Biotech programs may also benefit as modules on the biometric applications in corporate and industrial, privacy and security, and ethical and legal issues may be incorporated directly into their curricula. Finally, this course will serve as a model for the development of other cross-disciplinary curricula to enhance course offerings for all CSUs.

1 <http://www.findbiometrics.com/articles/i/695/> 2 <http://www.bsigroup.com/en/Standards-and-Publications/Newsletters--press/Latest-news/ICT-continuity-news/Security-firm-reports-increase-in-biometrics-orders/>

3 <http://www.ncjrs.gov/pdffiles1/nij/sl000896.pdf>, 3<http://fcw.com/Articles/2009/06/25/House-backs-biometrics-in-DHS-2010-pending-bill.aspx>, <http://www.findbiometrics.com/articles/i/7275/>

4 <http://www.dhs.gov/files/programs/usv.shtm> , http://travel.state.gov/visa/immigrants/info/info_1336.html