



SACRAMENTO
STATE

Program Proposal Form B



Academic Group (College): Engineering and Computer Science	Date of Submission to College Dean: Dec. 20, 2007
Academic Organization (Department): Computer Science	Requested Effective: Fall <u>X</u> , Spring __, 2008 __.
Department Chair: Du Zhang	Contact if not Department Chair:

Title of the Program: Undergraduate Certificate of Academic Achievement in Information Assurance and Security

Type of Program Proposal:

___ **Modification in Existing Program:**
 ___ Substantive Change
 ___ Non-Substantive Change
 ___ Deletion of Existing Program

X **New Programs**
 ___ Initiation (Projection) of New Program on to Master Plan
 ___ New Degree Programs
 ___ Regular Process
 ___ Fast Track Process
 ___ Pilot Process
 ___ New Minor, Concentration, Option, Specialization, Emphasis
 X New Certificate Program

PLEASE NOTE: Form B is to be used only as a Cover Form. Additional information is requested for each of the above as noted in the corresponding procedure in the Policies and Procedures for Initiation, Modification, Review and Approval of Courses and Academic Programs found at <http://www.csus.edu/acaf/univmanual/index.htm>

Briefly describe the program proposal (new or change) and provide a justification.

Undergraduate Certificate of Academic Achievement in Information Assurance and Security:

- (3) CSC 152, Cryptography (new course proposal in progress)
- (3) CSC 153, Computer Forensics Principles and Practice (new course proposal in progress)
- (3) CSC 154, Computer System Attacks and Countermeasures

Justification. The Center for Information Assurance and Security (CIAS) was recently approved as a National Center of Academic Excellence in Information Assurance Education by the National Security Agency and the Department of Homeland Security. The proposed certificate program would satisfy one of 10 criteria to renew this standing in five years' time. The certificate program would also satisfy one of the key aspects of the center's mission, which is to advance knowledge of information assurance and security practices through education, training and awareness, applied research, outreach, and collaboration with other institutions.

Approvals:

Department Chair: Date: 12/21/2007

College Dean: Date: 2/22/08

University Committee: _____ Date: _____

Associate Vice President and Dean
for Academic Affairs: _____ Date: _____

**ANALYSIS OF PROGRAM CHANGE PROPOSAL FOR THE UNDERGRADUATE CERTIFICATE
PROGRAM IN INFORMATION ASSURANCE AND SECURITY**

December 20, 2007

1. **Programmatic or Fiscal Impact on Other Academic Units' Programs.** It is intended that this program will complement the education of Criminal Justice majors as well as giving Computer Science majors and minors acknowledgement for this area of interest and expertise. Computer Science has already worked with Criminal Justice while establishing a minor in Information Assurance and Security, and will continue to keep Criminal Justice apprised of this and other related curriculum development.

2. **Fiscal Analysis of Proposed Changes.**
 - a. **How will the proposed changes be accommodated within department/college existing fiscal resources?** The courses will be taught by existing faculty using existing equipment and classrooms.

 - b. **If the proposed changes will require additional resources, describe the level and nature of additional funding the college will seek.** N/A.

 - c. **What additional space, equipment, operating expenses, library, computer, or media resources, clerical/technical support, or other resources will be needed? Estimate the cost and indicate how these resource needs will be accommodated.** N/A.

3. **Program Requirements:**

**Undergraduate Certificate of Academic Achievement
in Information Assurance and Security (9 units):**

- (3) CSC 152, Cryptography (new course proposal in progress)
- (3) CSC 153, Computer Forensics Principles and Practice (new course proposal in progress)
- (3) CSC 154, Computer System Attacks and Countermeasures

PROPOSAL TO CREATE AN UNDERGRADUATE CERTIFICATE PROGRAM IN INFORMATION ASSURANCE AND SECURITY

From: Center for Information Assurance and Security

This proposal requests approval for a certificate program in information assurance and security (IAS) at the undergraduate level. A side effect of this is to create two new undergraduate IAS courses (CSc 152, Cryptography, and CSc153, Computer Forensics Principles and Practices). A third course which already exists in our program, CSc 154, Computer System Attacks and Countermeasures, will be part of the group of three courses. We request the curriculum committee to put this proposal on a fast track for approval as a group as soon as possible.

- 1) The certificate program satisfies one of the 10 criteria for our Center for Information Assurance and Security (CIAS) to be recognized as a Center of Academic Excellence in IAS by NSA/DHS. This criterion carries a lot of weight. Having this program will prepare us to be strong in five years' time when we apply for review.
- 2) The certificate program satisfies one of the key aspects of the mission of CIAS as further explained below.

As you know, CIAS was recently approved as a Center of Academic Excellence in Information Assurance Education. The mission of CIAS is to advance knowledge of information assurance and security practices through:

- Education, training, and awareness programs in information assurance and security issues and practices.
- Applied research in information assurance and security.
- Developing interdisciplinary programs in information assurance and security.
- Outreach programs to assist our community, including community colleges, K-12 schools, industry, and government in information assurance and security issues.
- Forming collaborations with other education, research, industry, and government institutions as partners.

As mentioned above, one of the 10 criteria is to have a certificate program, concentration, or degree program. We recommend a certificate program where students who take these three courses are given certificates.

This proposal consists of multiple parts as follows:

- 1) Create two undergraduate courses in IAS areas, namely: CSc 152, Cryptography, and CSc 153, Computer Forensics Principles and Practices.
- 2) Create a certificate program requiring the above courses and CSc 154, Computer System Attacks and Countermeasures.