The Computer Science major at CSUB has added a concentration in Information Security starting in Fall 2013. This concentration is intended for students who wish to pursue a career in information assurance and security, either with government agencies or with industry. The Information Security concentration is a multidisciplinary degree program, incorporating courses from Computer Science, Mathematics, and the Global Intelligence and National Security (GINS) program.

**Major Requirements**

1. **Introductory Courses (16 units)**
   - CMPS 150 – Introduction to Unix (or CMPS 215)
   - CMPS 221 – Programming Fundamentals
   - CMPS 222 – Object-Oriented Programming
   - CMPS 223 – Data Structures and Algorithms

2. **Intermediate Courses (30 units)**
   - CMPS 295 – Discrete Structures
   - CMPS 312 – Algorithm Analysis and Design
   - CMPS 335 – Software Engineering
   - CMPS 350 – Programming Languages
   - CMPS 360 – Operating Systems
   - CMPS 376 – Computer Networks

3. **Advanced Courses – Information Security Focus (21 units)**
   - CMPS 490A and 490B – Senior Project
   
   Choose at least 15 units from the following list (one course must be 400-level):
   - CMPS 215 AND CMPS 216 – Unix Prog. & System Administration
   - CMPS 340 – Introduction to Digital Forensics
   - CMPS 342 – Database Systems
   - CMPS 445 – Data Mining and Visualization
   - CMPS 451 – Vulnerability Analysis
   - MATH/CMPS 475 – Applied Cryptography
   - CMPS 476 – Adv. Computer Networks and Computer Security

4. **Required Cognate Courses (30 units)**
   - PHIL 316 – Professional Ethics (Theme 2)
   - MATH 201 OR MATH 231 – Calculus I
   - MATH 202 OR MATH 232 – Calculus II
   - MATH 203 OR MATH 233 – Calculus III
   - MATH 330 OR MATH 230 – Linear Algebra
   - MATH 340 – Probability Theory

5. **GINS Cognate Courses (30 units)**
   - PLSI 304 – International Relations (Theme 3)
   - CRJU 440 – Terrorism
   - One GINS Intelligence Analytical Tools course selected from the following list:
     - GEOL 450 – Geographical Information
     - CRJU 494 – Profiling Violence (Theme 3)
   - Another GINS Intelligence Analytical Tools course may be used with the consent of a program advisor.
   - If a Geographical Information Systems (GIS) Tools course is not available, CMPS 371, CMPS 471, ECE 446, or ECE 447 may be substituted for the GIS course.
   - At least 15 units of GINS Focus Area courses selected from the following list:
     - Up to 10 units of GINS strategic language courses.
     - HIST 325 – History of European Colonialism (Theme 2)
     - HIST 340 – Latin America
     - HIST 358 – America’s Rise to Globalism
     - HIST 413 – The Middle East in World History
     - HIST 426 – China since 1800
     - PLSI 302 – American Foreign Policy
     - PLSI 303 – Global Security Issues
     - PLSI 308 – Government and Politics of China (Theme 3)
     - PLSI 309 – Government and Politics of Latin America
     - PLSI 323 – Government and Politics of the Middle East
     - PLSI 328 – Media, Propaganda, and Public Option (Theme 3)
     - PLSI 376 – Politics of International Terrorism
     - SOC 450 – Globalization and Social Change (Theme 3)
   - Other GINS Focus Area courses may be used with the consent of a program advisor.

6. **General Education Notes for 2013/15 Catalog**
   Computer Science majors have extensive general education modifications in the 2013/15 catalog. Refer to the catalog or a department advisor for more details about the modifications.

Go to the CEE/CS Department webpage for more information: [http://www.cs.csub.edu](http://www.cs.csub.edu)