

**Comprehensive Program Review (CPR)
Follow-Up Report
Bachelor of Science in Information Security and Assurance
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1. Provide evidence of *quality* enhancement of the program since 2003.

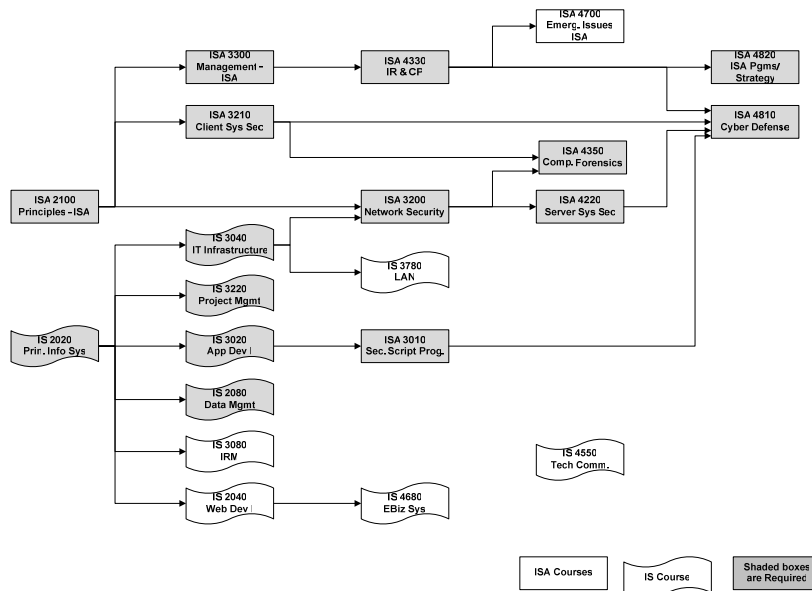
The Bachelor of Science in Information Security and Assurance was not approved by the board of regents until Fall 2004, and not offered formally until Fall 2005. Since its inception it has undergone three minor revisions in curriculum content. First and foremost was the addition of a new capstone experience – ISA 4810 Cyber Defense. Based on the regional and national competition of the same name, Cyber Defense provides the students with a real-world scenario, requiring that they, in teams, analyze, design and implement a defense strategy for an information asset set. This set, presented in the form of a network segment populated with computer servers, must then be properly configured and protected against a host of attacks, while continuously providing business services – like web pages, an electronic commerce site, email and file access.

The second series of changes were minor restructuring of prerequisites. As the courses were slowly rolled out, it became evident that some classes did not require the skills and knowledge of other existing prerequisites, but instead required information learned in other courses.

The third series of changes are currently underway. As the BS-Information Systems and BS-Computer Science are currently radically overhauling their curriculum programs, and as some of the courses being renovated or removed are (or were) included in the BS-ISA, a series of changes are underway to reflect the changes in the other degree programs. At the same time, another round of improvement in prerequisite flows is being implemented to better facilitate student learning and growth throughout the program, as well as improving the department’s ability to support the offering of required courses.

The following diagram shows the planned changes.

Proposed BS-ISA Curriculum Structure, Nov 27, 2007



2. Provide evidence of *productivity* enhancement of the program since 2003.

In Spring 2007, the BS-ISA matriculated its first series of graduates. After only two years in existence, four students graduated with majors or dual majors in Information Security and Assurance.

In Summer 2007, the BS-ISA matriculated an additional four students.

In Fall 2007, the BS-ISA expects to matriculate an additional 4-6 students, bringing its inaugural year total to 12-14, well ahead of the Board of Regents minimum of 5 per year.

With the addition of the Cyber Defense class, and the participation of KSU students in the annual Cyber Defense competition, a dramatic increase in the employer inquiries has occurred. Several regional employers have asked for information on students participating in the course and program as prospective employees. As a direct result, the number of available internships and cooperative studies has increased, as has the role of regional organization as speakers in various courses.

3. Identify the action plans and priorities from the 2003 Follow-Up Report that have been accomplished.

There was no follow-up report as there was no 2003 AOL report. However, an AOL report for the degree is under way. This is our only priority currently. Attached is the work to date.

4. Identify the action plans and priorities from the 2003 Follow-Up Report that still need to be addressed and indicate a timeline for their completion. If specific action plans and priorities have changed since 2003, please explain.

There was no follow-up report as there was no 2003 AOL report. However, an AOL report for the degree is under way. This is our only priority currently. Attached is the work to date.

5. Address the current status of the program's *viability*. If viable, justify whether the program should be sustained, reconfigured, or enhanced.

a. Indicate how the program advances specific goals and action steps of KSU's Strategic Plan.

Goal 1: To enhance and expand academic programs and delivery

The BS-ISA embodies Goal 1, as it is a new, cutting edge program, and was the second program of its kind at a public university in the US. Action Step 8 states:

“Add degree programs that are strategically important to the local community, to Georgia, and to the nation at both the undergraduate and graduate levels.”

“An educational systems that cultivates an appropriate knowledge of computer security will increase the likelihood that the next generation of IT workers will have the background needed to design and develop systems that are engineered to be reliable and secure” [5]. The need for information security is so great that the U.S. Congress in their legislation passed the Computer Security Act of 1986, mandating that all Federal IT workers have Information Security Training, and that NIST established standards for

information security for the nation's information systems. It also empowered the NSA to support information security education. In response, the NSA established Centers of Academic Excellence in Information Assurance, "an outreach program designed and operated by the National Security Agency in the spirit of Presidential Decision Directive 63, the Policy on Critical Infrastructure Protection, May 1998. The program goal is to reduce vulnerabilities in our National Information Infrastructure by promoting higher education in information assurance, and producing a growing number of professionals with IA expertise in various disciplines" [6]. In 2004, KSU became the 65th institution to obtain this esteemed recognition. We were re-recognized in 2007. (References available upon request)

Action Step 9 states: Review and modify as necessary the general education curriculum and each degree program to assure continued relevance to the needs and interests of students, the state, and the nation.

The BS-ISA undergoes continuous review and improvement. Faculty with an interest in ISA meet weekly to discuss the program and its performance. Changes are made annually to improve the flow and content of prerequisites and to ensure that we maximize student learning while minimizing obstacles to student degree completion.

Action Step 10 states: Increase the proportion of courses and programs that are offered off-site and online.

The BS-ISA is evaluating the feasibility of offering the entire degree online as an option for students. Faculty still meet and conduct classes on campus, but record and post lectures for students online. All assignments and exams can be completed online and submitted via WebCT Vista.

Goal 2 To improve retention, progression, and graduation rates while maintaining high quality

As the BS-ISA is still in its infancy, it is too soon to address retention and graduation rates. As stated earlier, we have already met our minimum requirements for graduation. We do continually however, address student progress, as mentioned in previous paragraphs, by examining the flow and offerings of courses almost constantly.

Goal 4 To enhance student life activities and prepare students to be leaders

Action Step 4 states "Increase percentage of students participating in internships, cooperative programs, and other career exploration opportunities." As explained earlier, the number of internships and cooperative student opportunities is increasing rapidly, as the program gains in popularity and reputation. We constantly encourage students to pursue internships, as real-world experiences is a must for a career in information security.

b. Identify resources needed to strengthen the program's ability to meet the goals of KSU's Quality Enhancement Plan.

Currently the resources needed are in planning for the department. Last year, a faculty search was unsuccessful in hiring a faculty member to teach primarily in the BS-ISA. Through some unknown circumstances, that faculty line was not available this year for a renewed search. The department has committed to looking for a faculty for another line in Information Systems, with an interest or ability to teach at least partially in the BS-ISA. In order to continue to offer required courses on a basis that facilitates the students ability to graduate in a timely manner, an additional faculty position focusing primarily on the BS-ISA is needed

- c. If the program is delivered off-campus, please provide a cost analysis of the off-site delivery.**

The program is currently delivered on-campus, however, a hybrid distance learning option is under consideration.

- d. Indicate the resources needed to sustain, reconfigure, or enhance the program's quality and productivity.**

See question 5b above