

Proposal for an “Information and Computation Assurance” Option in the BS-CIS Program

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Background: Over the last few years, issues related to information and computation assurance (ICA) have become increasingly important. These issues are related to privacy concerns of individuals, national security considerations, as well as private businesses concerned with protecting trade and other secrets. Partly in response this, the CSE Department has developed two new courses, CSE 551 (“Information Assurance”), and CSE 694K (“Network Security”). Both of these have been popular with students. In addition, there are a number of courses offered by other units in the university available to students interested this topic; a list of these courses appears at the web site for the Center for Information System Security (see web site: <http://www.cse.ohio-state.edu/caeia/>).

The current proposal will allow BS-CIS students interested in ICA to follow a named technical elective option focused on this topic. It is true that current students are already able, using the *Individualized Option* to take essentially the same set of courses as being proposed for this new option. However, having a named option would make it a bit more attractive to students and others. For example, the NSA has a program that will fund centers devoted to these topics, but one of their requirements is that the university offer suitable undergraduate programs in the area.

Current curriculum: Currently, BS-CIS majors are required to choose, as their technical elective option, one of the following: *Software Systems*, *Advanced Studies*, *Information Systems*, or *Individualized Option*. Each of the first three of these requires the student to complete between 23 and 27 hours of courses, the exact number depending on the option. These are made up of a specified set of higher-level CSE courses the particular set of courses depending on the option, a specified set of non-CSE courses again depending on the option, and a set of elective hours, a certain number of which are required to be higher-level CSE courses. The Individualized Option requires students to complete 24 hours of courses with at least 15 of these being CSE courses, the actual set of courses being determined by the students interests and plans, and in close consultation with the faculty adviser.

Proposal: We propose that an **Information and Computation Assurance Option** be introduced as a new technical elective option in the BS-CIS program as follows:

1. **Required Courses:** 13 hours: CSE 551, 601, 677, 678, 694K. 568, 571, 647, or 648.
2. **Elective Courses:** 12 hours; at least 3 hours must be CSE courses.

The following non-CSE courses may be of special interest:

AMIS 531, 627, 653, 658, 659; CRP/GEOG 607.

Process: Initial ideas for the option arose as a result of discussion among faculty interested in setting up a NSA-funded center on Information Security. These ideas were discussed at the October 26th and November 2nd meetings of the departmental Undergraduate Studies Committee. The BS-CIS student representative to the committee was a participant in these discussions. The minutes of the meetings were posted on electronic student and faculty newsgroups allowing both students and faculty to offer their comments. The proposal was arrived at following these discussions. At its meeting of November 2, the Undergraduate Studies Committee approved the proposal and recommended it to the full faculty for its consideration. The CSE faculty approved the proposal at its meeting of November 7.

Given the importance of the area, we request expeditious approval of the approval by the MPS Curriculum Committee so that it becomes available to students as soon as possible.