Disclaimer: This Self Study was developed to meet the goals of the CAC Session at the 2006 Summit. It should not be considered as a model or a template.

ABET Computing Accreditation Commission

SELF-STUDY QUESTIONNAIRE FOR REVIEW of the COMPUTER SCIENCE PROGRAM and the INFORMATION SYSTEMS PROGRAM

submitted by

Chesapeake University Institution

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to the Computing Accreditation Commission

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Background Information

Chesapeake University is a state funded university located on the Chesapeake Bay in Bayville, MD. It is primarily an undergraduate institution although it offers some masters level programs and has a professional Pharmacy School. Both the Computer Science and Information Systems programs reside in the Computing Department in the College of Arts and Sciences. Both programs are under review for possible accreditation by the Computing Accreditation Commission of ABET, Inc.

Because both the Computer Science and Information Systems programs have so much in common, we have decided to provide common responses in this self study.

I. Objectives and Assessment

Intent: The program has documented, measurable objectives, including expected outcomes for graduates. The program regularly assesses its progress against its objectives and uses the results of the assessments to identify program improvements and to modify the program's objectives.

1. The program has documented, measurable objectives.

The following is taken from the Computing Department's web site, the department primarily responsible for offering the B.S. in Computer Science and the B.S. in Information Systems.

Mission: The mission of the Computing Department is to provide strong, dynamic, nationally recognized educational computing programs that develop students with the computing knowledge and skills essential for employment in the 21st century.

Program Educational Objectives: Five years after graduation, graduates of both the computer science and information systems programs will demonstrate

- 1. The ability to assume leadership roles in computing careers or in research;
- 2. Evidence of the ability to collaborate in teams;
- 3. Evidence of a pursuit of life-long learning.

Faculty Goals: Attract and retain a diverse and qualified faculty who

- 1. Remain current in the disciplines;
- 2. Provide an up-to-date curriculum;
- 3. Contribute to the discipline through peer-reviewed publication.

Laboratory Goals: Only by successfully using the latest equipment will students be prepared to compete in the work force.

- 1. Provide technologically up-to-date classrooms and labs, including hardware and software;
- 2. Provide sufficient systems support personnel to ensure laboratories are operational and running the correct software.
- 2. The objectives include expected outcomes for graduates.

Program Outcomes: Each of the following program outcomes is tied to a Program Educational Objective as indicated in parentheses following each outcome. Graduates of both the Computer Science and the Information Systems programs will be able to

- A. Analyze, design and implement a computerized solution to a "real life" problem. (Program Educational Objective 1)
- B. Demonstrate independent, critical thinking, and problem solving skills. (Program Educational Objective 1)
- C. Communicate effectively orally, in writing, and via multimedia in both a technical and non-technical manner. (Program Educational Objectives 1 and 2)
- D. Collaborate effectively in a team environment. (Program Educational Objective 2)
- E. Pursue successful graduate study. (Program Educational Objective 3)
- F. Apply the knowledge and skills to remain current in the field and engage in life-long learning. (Program Educational Objective 3)

3. The program regularly assesses its progress against its objectives (and program outcomes).

The department uses two assessment mechanisms to determine the extent to which the Program Educational Objectives are being met.

- Surveys of graduates after 5 years A survey (see Appendix C) is sent each year to all graduates of both programs who completed their degree five years ago. They are queried as to whether they are working in a job related to their degrees, whether the job is a research, managerial, or technical position, whether they have assumed a leadership role on any project, whether their employment requires them to work on teams and a self assessment as to how well they perform in teams, and whether they have started or completed graduate degrees or taken additional computing courses since graduation.
- Survey of our Industrial Advisory Board Our Industrial Advisory Board is composed of representatives of the major employers in our area. They are surveyed (see Appendix D) every other year to determine whether our graduates are meeting their needs.

The department uses three methods to determine the extent to which the program outcomes are being met. These include:

• Assessment of student performance in individual courses;

- Exit survey of graduating seniors;
- Co-op surveys of the students' co-op supervisors.

Assessment of student performance in individual courses: The following chart indicates how each Program Outcome is measured.

Outcome	Mechanism	Measured	Responsible	When
А	CS450 & IS450	Final project	Instructors	Each spring
	capstone courses	grade		
В	CS101-102 & IS101-	Final project	Instructors	Each
	102 programming	grade		semester
	sequence			
C	CIS 330 Ethics	Oral	Instructor	Each
	course	presentations		semester
		& papers		
	CS450 & IS450			
	capstone courses			
D	CS320 & IS320	Final project	Instructor	Each spring
	database course	grade		
	CS450 & IS450			
	capstone courses			
E	Diploma	Successful	Faculty	Each
		completion of		semester
		curriculum		
F	Diploma	Successful	Faculty	Each
		completion of		semester
		curriculum		

Exit survey with students: All graduating seniors in both majors complete an online survey (see Appendix A) in which they are asked to estimate on a scale from 1 to 5, the extent to which they believe they have satisfied each program outcome. They also indicate whether they have found a job in their major and whether they plan to attend graduate school in the next five year.

Co-op survey with the student's co-op employers: Every student in both majors is required to complete a co-op experience. Upon completion, their supervisor is asked to complete a survey (see Appendix B) to evaluate, on a scale from 1-5, the extent to which the student has met each program outcome.

Faculty Goals

- Publication record Each spring our faculty submit a list of their publications and conferences they have attended. In addition, they indicate what they did during the past year to ensure the courses they teach are remaining current.
- Sabbatical trends Each year the Chair of the Department tracks the number of faculty who qualified for a sabbatical and the number funded for one.

Laboratory Goals

Maintain a three-year life cycle management plan. – Each year the Chair produces a report (see Appendix E) indicating what equipment was purchased during the current fiscal year and what equipment needs to be ordered during the next fiscal year to ensure the laboratories remain on a three-year life cycle. The Director of Technology Services approves the list and the Provost funds the list.

4. The program uses the results of the assessments to identify program improvements

The department meets each spring in an all day meeting where the Assessment Coordinator presents the results of the assessment data collection. The faculty analyzes these data and determines whether any program improvements need to be made. Minutes of the meeting can be found in Appendix F. To date, two improvements have been identified and implemented. As a result of the survey from the Co-op supervisors, it was determined that the students are not proficient at working in teams. Originally teamwork was only done in the capstone course. The required database course was modified to require that the final project be done in teams. Originally oral presentations were only made in the capstone courses. As a result of an analysis of the grades for these presentations, it was determined that the students needed more practice. The content of the ethics course was modified to include oral presentations in addition to the papers written.

5. The program modifies the program's objectives (and outcomes), as needed.

To date, an analysis of our data has not indicated that we need to modify any of the program educational objectives or program outcomes.