Department of Computer Science Report of Use of Assessment Results For Academic Year 1999-2000

This report uses the department's Major Field Assessment Plan dated September 28, 1993. Although an updated plan and a new Goal Attainment Framework was submitted to the Office of Institutional Research in August of this year, data for that plan will not be available until early in Spring, 2001.

Goal 1: To provide students knowledge of the concepts and principles of Computer Science.

This goal is measured in two ways: by having graduates take the Major Field Achievement Test in Computer Science in the semester of their graduation, and through exit interviews, also completed in their semester of graduation.

This year's MFAT scores show a little improvement, but not significantly so, over those of previous years, placing SLU in about the 20th %-ile nationwide, again. We have been able to attribute these low scores, in part, to a lack of proper motivation toward taking the test by our majors. To help ensure that the test results more accurately reflect the actual knowledge level of our graduates, we have begun talking with the students to let them know the purpose of the test and how important it is to the program. We have also provided access to a similar test, the GRE Specialty Exam in Computer Science, so the students will be prepared for the types of questions they will see on the MFAT. Only after we are sure that the students are treating the test seriously will we use it as intended in assessing the quality of our program. We are also planning to give the test earlier in the program, after the students complete CMPS 375 and CMPS 390. We think that assessing our core courses alone is more important to the student's preparation than assessing the program as a whole.

We have either not received the summary of the 1999-2000 exit interviews, so results based on that document are not included here.

Goal 2: To develop students' programming skills and ability to communicate regarding their work.

This goal is (was) also measured in two ways. The first was by having junior and senior computer science majors assess the work of freshman and sophomore majors by acting as graders for lower-level classes. Before 1998, computer science majors were required to enroll in CMPS 492 through which they earned credit for the grading. As a part of the redefinition of the computing curriculum to reduce the required hours from 132 to 121-122, we eliminated CMPS 492. Thus, that input to our assessment process is no longer available.

The second measure was, again, via the exit interview, the summary of which is not available to us at this time.

Because we felt that the 1993 Major Field Assessment Plan did not provide for an appropriate assessment of our program, we revised the plan and developed a new Goal Attainment Framework. They are attached to this document.

Although data for a formal assessment was inadequate to indicate if any changes were needed to the program, through our informal assessment process, we took the following actions:

- 1. Additions, Deletions, Revisions to the Program
 - (a) Additions: CMPS 309, Applied Computer Networking, to satisfy demand from our students and from practitioners off-campus.
 - (b) Deletions: CMPS 492, Laboratory Experiences in Computer Program Analysis and Maintenance as a result of the reduction in the size of the program
 - (c) Revisions: MATH 161 was made a prerequisite, instead of a co-requisite, for CMPS 120, 159 and 161, to better the students' problem solving skills.
- 2. Actions Taken to Strengthen Programs (advising, program reviews, assessment, development successes, etc.)
 - (a) Instructors of CMPS 161 are "synchronizing" their syllabi and are sharing tests and assignments to help ensure more evenness of coverage across all sections of the class.
 - (b) We are developing lessons on problems solving skills for either a prerequisite to our first major's course or to present in our first major's course.

Upon receipt of the summary of exit surveys by our graduates, we will reassess last year, and if necessary, will revise and resubmit this report.

Major Field Assessment Plan B.S. Computer Science

August, 2000

The mission of Southeastern Louisiana University is to meet the educational and cultural needs, primarily of Southeast Louisiana, to disseminate knowledge and to facilitate life-long learning through quality instruction, research and service in a safe, student-centered environment.

The mission of the Department of Computer Science is to provide the professional background necessary for successful employment in computing careers or graduate studies in Computer Science.

Goal 1: To provide students with a broad understanding of computer science, as recommended in nationally accepted program guidelines.

A. <u>Expected Outcome</u>: Computer Science seniors will compare favorably to graduates to other Computer Science programs, nationwide.

<u>Assessment</u>: SLU graduating computer science majors will take the ETS Major Field Assessment Test in Computer Science and will achieve an average score above the 50th percentile on a national sample of schools in the areas of Programming Methodology and Software Systems.

Goal 2: Computer Science majors will understand software development principles and will be able to successfully apply them.

- A. <u>Expected Outcome</u>: Computer Science students in CMPS 411, Software Engineering, will have felt adequately prepared to tackle a major software development project.

 <u>Assessment</u>: 75% of the students will indicate, on the course exit survey, that they felt that their freshman, sophomore and junior-level coursework at least "adequately prepared" them for the project in CMPS 411.
- B. Expected Outcome: Computer Science students in CMPS 411, Software Engineering, will successfully complete a major software development project.

 Assessment: 75% of the students will earn a grade of "B" or better on the project.

Goal 3: Computer Science graduates will feel adequately prepared for computing careers or for graduate studies in computer science.

- A. Expected Outcome: Computer Science graduates will feel adequately prepared for a career in computing or for graduate studies in computer science or both.

 Assessment: In the Survey of Undergraduate Alumni, 75% of computer science graduates will be Satisfied or Very Satisfied with the "Overall Quality of Your Degree Program".
- B. Expected Outcome: Computer Science graduates will feel that their course work related directly to their jobs or their graduate studies or both.

 Assessment: In the Survey of Undergraduate Alumni, 75% of computer science graduates will respond, for 75% of the courses listed, that the concepts they learned in those courses were of "Some Help" or "Lots of Help".

Goal Attainment Framework B.S., Computer Science August 31, 2000

Expected Outcome	Much Less Than Expected	Less Than Expected	Expected	More Than Expected	Much More Than Expected
ETS Major Field Assessment Test in Computer Science average score in Programming Methodology	0 - 29%	30 - 49%	50-60%	61-75%	76 - 100%
ETS Major Field Assessment Test in Computer Science average score in Software and Systems	0 - 29%	30 - 49%	50-60%	61-75%	76 - 100%
CMPS 411 students who felt that their previous course work adequately prepared them to tackle the class project	0 - 50%	51 - 74%	75%	76-90%	91-100%
CMPS 411 students who earned a "B" or better on the class project	0 - 50%	51 - 74%	75%	76-90%	91-100%
On Survey of Undergraduate Alumni, students who were Satisfied or Very Satisfied with the CS degree program	0 - 50%	51 - 74%	75%	76-90%	91-100%
On Survey of Undergraduate Alumni, students who felt that the concepts in the listed courses were of Some Help or Lots of Help	0 - 50%	51 - 74%	75%	76-90%	91-100%