Department of Computer Science
Report of Use of Assessment Results
For Academic Year 2001-2002

Goals and Outcomes:

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

   A. *Expected Outcome: Computer Science seniors will compare favorably to graduates to other Computer Science programs, nationwide.*

   Assessment: 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[1].

Scores (expressed as percentile rankings) from the MFAT were as follows:

Area	Fall, 2001 graduates
Programming Methodology	46
Software Systems	33

Area	Spring, 2002 graduates
Programming Fundamentals	31
Computer Org/Arch/Op Sys	30

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

   A. *Expected Outcome: Computer Science students in CMPS 411, Software Engineering, will have felt adequately prepared to tackle a major software development project.*
   Assessment: 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.

77% of the CMPS 411 students indicated that their previous course work at least adequately prepared them for the capstone course. 88% scored a B or better on their projects.

---

[1] ETS reduced the categories on the MFAT from four to three between the times the students took the tests. We chose the two most relevant categories for the Spring, 2002, graduates.

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".

In the *1999 Survey of Undergraduate Alumni*, 62.5% of the respondents indicated that they were Satisfied or Very Satisfied with the overall quality of the program. Also, the respondents indicated that the concepts in 65% of the courses listed were helpful. These results are unchanged from our previous report, as the survey is done only every two years.

Discussion:

Goal 1: The Fall, 2001, graduates fell slightly below target in Programming Methodology and well below target in Software Systems. The Spring, 2002, graduates took a different test and scored well below target in both categories. A large part of the low scores is a lack of motivation on the students' part. The results are not factored into any of their course grades, and we receive the results too late to use as a go/no-go determinant for graduation. And, because most of them feel inconvenienced by having to give up time to take the tests, many of those go in with a negative, at worst, or don't-care, attitude at best, toward the test.

We will discuss this within the department, and with assessment folks outside the department, to determine if we should continue having our students take the test, and, if not, what should take its place.

Goal 2: In the course exit survey, the students were asked in which areas they felt less than prepared. Most stated that they felt unprepared to use the languages/concepts that they chose for their projects, because those languages and concepts had not been taught in earlier classes. Examples include GUI design, Visual Basic, and team dynamics. However, these students had learned computer science fundamentals well enough that they were able to build on that foundation to learn what they needed to successfully complete their projects. In that sense, the program is preparing them for what they can expect when they enter the workforce.

Goal 3: Since we have not received results from the 2001 Survey of Alumni, we looked at the 2000-2001 Exit Survey results. Of the 30 graduates who responded to the survey, 70% indicated that they were satisfied or very satisfied with their degree program. 73% indicated that they were satisfied or very satisfied with their employment prospects (the question that we could find

closest to "preparedness for their jobs"). The written comments shed little light on reasons for these responses. Most of the negative comments were either about items outside of our department or about items that we've since changed or corrected.

Actions to be Taken:

(1) Determine whether the Major Field Test in Computer Science is the best measure for us to use, and if not, what should replace it.

(2) In the short-term, advise CS majors in the scientific emphasis to take CMPS 383, for team-building, and CMPS 439, for database concepts, as their upper-level electives. Determine what, if anything, should be done in the long term.