

South Carolina State University Institutional Effectiveness Summary

Introduction

South Carolina State University's 2006 institutional effectiveness summary includes two components this year. The components are General Education and Majors or Concentrations. The Institutional Effectiveness Assessment Reporting Process at South Carolina State University is a comprehensive process coordinated by the Office of Institutional Research with extensive input from constituents' campus wide.

In addition to the two components, the institutional effectiveness summary report contains a statement concerning the institution's policies and procedures as it relates to its ability to provide a "technologically skilled workforce". This statement is delineated in the next two paragraphs.

The university has stated in its mission statement that through instruction, research, and service activities, SCSU prepares highly skilled, competent, economically and socially aware graduates to meet life's challenges and demands that enable them to work and live productively in a dynamic, global society.

Also included in the 2005-2006 catalog, is a general education curriculum model which states that all graduate must be capable of participating in the dynamics of a rapidly evolving, highly technological, and global society.

To achieve this goal, all students are required to take nine (9) hours in quantitative reasoning and technological understanding. Three hours are in computer technology.

In addition, all major programs of the university have outcome statements that indicate their graduates must be technologically prepared for the workforce.

The assessment process for South Carolina State University's academic and administrative programs and services focuses on the development of annual program plans. These plans include the following: 1) a description of the programs' relationship to the University's mission statement; 2) identification of program outcomes and assessment criteria; and, 3) identification of how the assessment results will be used to improve the programs and services.

The University has established an assessment committee. This committee establishes and monitors policies to assess

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academic programs, select assessment instruments, and make recommendations for program improvements.

1. General Education

The General Education Curriculum at South Carolina State University is designed to address the following outcomes:

1. Students will attain literacy---read with comprehension, write and think systematically and logically, and speak with clarity in a manner that is reflective of the educated.
2. Graduates will possess factual knowledge and conceptual understanding of the significance impact and value of world art, history, culture, and humanities-based disciplines to enhance their general awareness of world issues and the complexities of modern global culture.
3. Graduates will possess quantitative knowledge of life-related mathematics, sciences, economics, commerce and contemporary technologies.
4. Graduates will be fully functional, self-reliant contributors to the evolving global culture in which they all must participate.

The program consists of 48 credit hours. The course requirements are published in the *University Catalog*, pp.48-52.

ASSESSMENT PROCESS

As part of the University's Southern Association of Colleges and Schools (SACS) review process that will begin at the University this academic year (2006-07), the General Education Curriculum will be reviewed and evaluated. A Committee will be established by the Vice President for Academic Affairs in September 2006 to complete this process. This report contains baseline assessment information from the Graduate Follow-up Survey that will be used in the General Education review process.

The Graduate Follow-up Survey was administered to the five hundred twelve 2004-05 graduates. The purpose of the survey was to determine from the graduates' perspectives how the General Education Curriculum made an impact on their workplace performance and continuing education skills preparation.

The key questions on the survey that were reviewed dealt with the following general education skills: written and

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oral communication, problem solving, critical thinking, leadership, and information technology. The understanding of different beliefs and cultures and working cooperatively in a group setting was also reviewed.

The demographic and number of completed surveys is described in items 1 and 2.

1. Four hundred and twenty-eight graduates completed surveys. Five hundred and twelve surveys were administered. This is an 80.9% response rate.

2. The majority of the respondents were female (68%, n= 291), while 32% (n=137) were males. Black students comprised 94 % (n=402) of the group, while 4% (n=17) were white, and 2% (n=9) other.

ASSESSMENT RESULTS

The survey results are as follows.

1. Ninety percent (n=385) of the graduating seniors agreed that the statements indicating improvement in the specific area of communication skills (writing, speaking, and critical thinking) were due to the General Education Curriculum and that they performed better on their jobs/in graduate school due to these skills.
2. Eighty-sixty percent (n=377) contributed their problem solving and understanding of computer technology skills to general education courses taken at SC State.
3. Seventy-eight percent (n=334) agreed their leadership skills, ability to work with different people, and working cooperatively in a group setting were improved through general education courses.
4. The scientific and mathematical reasoning and mathematical skills' indicators received the lowest rating by the survey respondents. Only 66% (n= 282) of the graduates agreed that the General Education Curriculum improved their skills in these areas.

USE OF RESULTS/ACTION TAKEN

In academic year 2006-2007, the Assessment Committee will identify a standardized assessment instrument to measure the effectiveness of the revised General Education Curriculum

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and the student and graduate populations to be surveyed. The University will continue to use data from the Graduate Follow-up Survey. This data will be compared to previous years. A web based faculty designed General Education assessment tool will be administered to all fall 2006 first-time freshmen. The assessment tool will be used to determine the baseline skills of entering students.

1. MAJORS OR CONCENTRATION

The Vice President for Academic Affairs is developing a new review process for all SC State programs. The new system is scheduled to be implemented by the Deans' Council in spring 2007. The computer science major recently completed an ABET assessment accreditation visit; therefore, assessment data for this program is listed in this report. Other majors will be reported on in August 2007 after the program review process has been developed and implemented.

COMPUTER SCIENCE

An internal assessment of the program was made by the Computer Science Accreditation Support Committee of the Industrial Advisory Council of the School of Engineering Technology and Sciences. Results of the assessment revealed that: (1) the students entering the program are prepared based on admissions standards; (2) there is a need to revise/upgrade the curriculum, labs/resources; (3) there is a need to hire more faculty and, (4) to gain additional financial support from the University.

Because of the assessment, the curriculum was revised and approved. The new curriculum was implemented. Specifically, the numbers of credit hours in the curriculum were reduced from 136 to 125. The courses CS205, CS209 and CS210 were deleted from the curriculum. Two new required courses were added to the curriculum CS300 (Computer Logic) and CS350 (Social and Ethical Implications of Computing).

Students are now required to take two science courses. These courses provide students more insight in the scientific method and allow them to better apply mathematics in the sciences. It also allows students to take computer science courses that provide a broader base of computer science knowledge. The curriculum meets the requirements of an undergraduate curriculum as required by the Association

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of Computing Machinery and the Computing Sciences
Accreditation Board.

New computer equipment was purchased. New faculty members were hired. The Computer Science program faculty members were given additional office space. The faculty teaching loads were change to meet accreditation standards.

The Department also conducted an external assessment of the program. The external evaluator reviewed faculty credentials, curricula, facilities, library resources, and institutional support. The findings are listed below.

The evaluator indicated the program strengthens are:

1. The computer science program attracts the best student at the University as it relates to GPA, SAT/ACT scores and other relevant factors.
2. The faculty provides quality instruction and is committed to developing an excellent program.
3. The computer science graduate placement rate is ninety-six percent.
4. The curriculum has been revised to meet accreditation standards.

The weaknesses of the program are:

1. The program needs to hire three Ph.D. Faculty to reduce heavy teaching loads and to have adequate faculty with appropriate credentials for computer science.
2. There is a need to reduce the number of introductory level courses that count as senior electives for graduating students.
3. The library resources are dated and sparse. There is a need to increase the number of computer science resources. Specifically, there are no journals in computer science. The journals from the Association for Computing Machinery IEEE Computer Society should be included in the collection.

In addition, to the internal and external assessment, the computer science program utilized student data and input to assess the program during this period. Other resources used during this period were student enrollment, placement profiles, surveys, and exit exams. For example, the Computer Science program admitted 82 computer science majors in the fall 2005. Thirteen of these students had SAT scores that exceeded 1,000. The average SAT score for this entering class of computer science majors was 880, exceeding the University's score of 840.

In an effort to measure exit competencies acquired by the graduating students, the senior comprehensive examination of computer science knowledge was administered to graduating

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seniors. The level of performance considered satisfactory is eighty percent. Of the sixty-three graduating seniors who took the exam, seventy-five percent of the students met or exceeded the performance level. Study guides are being developed to assist future students who do not meet or exceed the performance level.

The student satisfactory surveys (senior exit and continuing students' surveys) revealed that ninety-five percent of the students are satisfied with the faculty and program offerings. The major weaknesses identified by the students appeared on the alumni survey. The graduates identified the need for more relevant programming courses. These courses should be integrated in the computer science major. A follow-up survey will be developed by the computer science faculty to ascertain what graduates are finding in the workplace. This data will be reviewed and curriculum revision will be made, if necessary.

USE OF RESULTS/ACTION TAKEN

The annual assessment process of the computer science program will continue. The following plan of action is being implemented.

1. Curriculum revisions have been implemented and the faculty will continue to monitor and evaluated the curriculum.
2. Three new Ph.D. faculty positions have been approved. Currently, they have hired two new professors.
3. A follow-up survey to identify workplace skill needs will be developed and administered. Data from the survey will be used in curriculum revisions.