

JAN 12 2005
BY:.....

**Degree Program
Assessment of Student Learning Plan
Kansas State University**

- Check the box if your program's student learning outcomes have been modified since November 2003. If so, please email (apr@ksu.edu) or attach a hard copy to this document.

A. College, Department, and Date

College: *Engineering*
Department: *Computing and Information Sciences*
Date: *November 1, 2004*

B. Contact Person(s) for the Assessment Plans

Virg Wallentine, Dept. Head
Rod Howell, Undergraduate Studies Committee Chair

C. Degree Program

B.S. in Computer Science

D. Assessment of Student Learning Three-Year Plan

1. Student Learning Outcome(s)

The BS programs in Computer Science and Information Systems seek to enable students to:

- *Master the core knowledge of computing*, by means of courses in algorithms and data structures, computer architecture and organization, data management systems, operating systems, programming languages, software engineering and architecture, and theoretical foundations.
- *Develop basic skills for application of computing knowledge*, by means of training in contemporary design-and-development methodologies and application of the methodologies to individual, interdisciplinary, and team problem-solving activities.

Special rationale for selecting these learning outcomes (optional):

Relationship to K-State Student Learning Outcomes (insert the program SLOs and check all that apply):

Program SLOs	University-wide SLOs (Undergraduate Programs)					Program SLO is conceptually different from university SLOs
	Knowledge	Critical Thinking	Communication	Diversity	Academic / Professional Integrity	
Core knowledge	X					
Application		X				

2. How will the learning outcomes be assessed? What groups will be included in the assessment?

- **Core Knowledge**

- **Exams.** A departmental committee will review the results of selected questions from exams given in CIS 200, 300, 301, 450, 501, 505, 520, 560, 570, and 575. The specific questions for this assessment will be formulated by the course instructor, in cooperation with the Undergraduate Studies Committee, in order to evaluate the knowledge obtained by students in some particular core area of computing. The results of this evaluation will be recorded and tracked from semester to semester. Each semester, the committee will review all of the graded answers for each of the selected questions from each of the courses taught the preceding semester.
- **Capstone Sequence.** CIS540 and CIS541 comprise the capstone course sequence in Computer Science. Both of these courses involve team projects that encompass the complete software lifecycle. These projects should be a good demonstration of a student's capabilities in computer science. The instructor of CIS541 will assess each team and each student on understanding of core knowledge. Any minor deficiencies that are noted in these assessments will be tracked and assessed as to which course is related. Any major deficiencies will be analyzed as to cause and possible corrective action. The results of this assessment will be forwarded to the Undergraduate Studies Committee.
- **Senior Exit Interviews:** Each semester, the Department Head will interview all graduating seniors in one or more group meetings in order to obtain feedback regarding their educational experience in our department. Specific questions regarding our performance in communicating the core knowledge of computing will be asked. Summaries of these interviews will be forwarded to the Undergraduate Studies Committee.

- **Application**

- **Exams.** A departmental committee will review the results of selected questions from exams given in CIS 501, 520, and 560. The specific questions for this assessment will be formulated by the course instructor, in cooperation with the Undergraduate Studies Committee, in order to evaluate particular skills for application of computing knowledge. The results of this evaluation will be recorded and tracked from semester to semester. Each semester, the committee will review all of the graded answers for each of the

selected questions from each of the courses taught the preceding semester.

- **Capstone Sequence.** Each year, the instructor of CIS541 will assess each team and each student on their abilities to apply computing skills toward the design and implementation of a software project. Any minor deficiencies that are noted in these assessments will be tracked and assessed as to which course is related. Any major deficiencies will be analyzed as to cause and possible corrective action. The results of this assessment will be forwarded to the Undergraduate Studies Committee.
- **Senior Exit Interviews:** Each semester, the Department Head will interview all graduating seniors in one or more group meetings in order to obtain feedback regarding their educational experience in our department. Specific questions regarding our performance in developing skills for applying computing knowledge will be asked. Summaries of these interviews will be forwarded to the Undergraduate Studies Committee.

3. When will these outcomes be assessed? When and in what format will the results of the assessment be discussed?

Both outcomes will be assessed each year. Each assessment will be discussed by the Undergraduate Studies Committee each semester. Results will be discussed with the faculty at the end of every third year, or more frequently if results appear to indicate a more urgent need.

The assessments using exams will be phased in gradually over the next three years in order to allow us to do a good job of formulating the specific questions. We will add courses to be included in these assessments according to the following schedule:

- **Spring 2005:** CIS 200
- **Fall 2005:** CIS 501 and 575
- **Spring 2006:** CIS 300
- **Fall 2006:** CIS 301 and 520
- **Spring 2007:** CIS 450 and 505
- **Fall 2007:** CIS 560 and 570

4. What is the unit's process for using assessment results to improve student learning?

The Undergraduate Studies Committee will monitor the assessments recommend any action that appears needed.