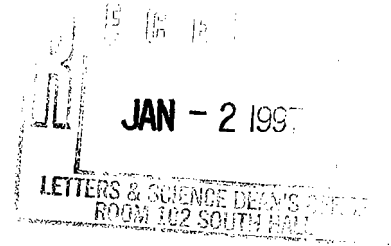


# Assessment Plan

## Computer Sciences Department



### Introduction

We first will establish a number of goals for our graduate and undergraduate programs. We will then outline a variety of approaches that we will use to measure our success in meeting the goals we have articulated.

### Goals for the Undergraduate Program

- Provide students with a thorough understanding of the basic principles of computing, including the structure, capabilities, and limits of modern computers

Undergraduate students, both majors and non-majors, must be thoroughly familiar with the basic principles of computing—how programs operate, how information is represented, stored and communicated. It is important that students recognize what computers *cannot* do and the practical and ethical limitations of computer technology.

- Enable all students to make the fullest use of computing applications in their course work and academic activities

Introductory courses, like CS 132, familiarize students with basic applications like word processing, spreadsheets, and use of the Internet. More advanced courses introduce specialized applications, including language translators, database query systems and system simulators. Our goal is to allow students to make the fullest possible use of computing in their academic endeavors.

- Provide extensive hands-on access to state of the art computing facilities

The rate of change in computing is phenomenal. Advances in technology fundamentally change how computers are used to solve problems. It is essential that we train students using modern, state of the art, computing facilities. We must anticipate emerging trends in computing and integrate them into our educational program.

- Give undergraduate majors a thorough preparation for success in future employment or graduate education

Many of our undergraduate majors seek employment immediately after graduation. Others continue their education at the graduate level. It is essential to give them the preparation necessary to succeed in a very competitive and ever-changing computing environment.

## **Goals for the Graduate Program**

- Provide advanced education in all aspects of the theory and practice of computing

Computer science encompasses an immense variety of topics, ranging from the very theoretical to the highly applied. Our department spans almost all major research areas. It is vital that we continue to provide graduate students with instructional opportunities in all key areas. Moreover, as new areas of study emerge, we must adapt to them and include them in our curriculum.

- Provide graduate students the facilities and instruction necessary to pursue advanced research in computing

We strive to quickly involve new graduate students in departmental research projects. Research experience prepares students for involvement in the newest "cutting edge" developments in computing. It is essential that we have the facilities and personnel necessary to prepare students for a successful research career in industry or academia.

- Prepare graduate students for a successful research career in industry or academia

Many graduate students leave with a Masters degree and take a position in industry. These students must have a thorough and comprehensive education necessary to allow them to assume leadership roles in computing. Other graduate students earn a Ph.D. These students must be prepared to do world-class research work at universities and research laboratories.

## Assessment Procedures

We propose to implement a variety of assessment procedures to determine how well we are meeting the goals we have articulated.

- Analyze individual course evaluations

For more than two decades we have required detailed course evaluations from all instructors. These evaluations allow us to measure the effectiveness of individual instructors and the opinions and satisfaction level of students in all courses. We can identify problem areas and take immediate steps to strengthen areas found to be wanting.

- Distribute a questionnaire to recent graduates

We plan to contact recent graduates (at all degree levels) to determine their level of satisfaction and to solicit suggestions for improvement. We may also contact students several years after graduation, to determine their views after they have matured and established themselves. We may do these surveys over the Internet, using our alumni data base.

- Distribute a questionnaire to campus recruiters

A large number of industrial recruiters visit our campus every year. A number of companies support our program through donations of money and equipment. We believe feedback from recruiters would be helpful in assessing how our students are viewed by potential employers. An objective analysis of our strengths and weaknesses could prove most helpful.

- Investigate departmental ranking in regional and national surveys

The standing of our department can be measured using a variety of rankings. Listings of leading departments, as determined by departmental chairs, allow us to determine how others view us. The CRA Taulbee Survey, which measures the production of Computer Science Ph.D.'s, provides a measure of productivity. Measures of citations of our research in leading journals allow us to measure research productivity. Aggregate research funding allows us to measure funded research.

Comparing current surveys with previous ones will allow us to determine how we are trending. Identifying peer departments that rank higher than we will allow us to focus on successful competitors and to learn from their successes.

## **Summary**

Our assessment plans will undoubtedly be refined as we begin to implement them. However, we believe the approaches we have outlined will prove effective in measuring the quality of our instructional programs and in suggesting ways to strengthen them.