“If you measure it, it will improve.”
CS Assessment Plan was adopted in the Fall 1996 and has the following components:

- Capstone Course
- Performance Reviews
- Faculty Inventory
- Alumni Survey
- Program Reviews
- GRE's and Graduate School Admissions
- Instructor/Course Evaluations
Capstone Course (C435)

- Majority of students seem to arrive with their fundamental programming skills intact.

- The addition of C308 (which involves a serious team project) as a prerequisite for C435 has improved the ability of the students to work in teams.

- Some problems remain: faculty noted students were not aggressive when facing a new situation and generally lacked self confidence.

- Remedy: assigning more independent programming assignments in which the students are required to produce a complete solution.
Courses that typically required students to present the results of significant projects to the instructor or to the class. The courses are:

- C308 (System Analysis and Design),
- Y398 (Internship _ Professional Practice)
- C463 (Artificial Intelligence)
- C490 (Biomorphic Computing)
- C490 (Computer Vision)
- B442 (Database Systems)
Faculty Inventory

- faculty meets frequently to discuss curriculum issues and ways to improve our delivery of our subject to the students. These discussions have resulted in:

  - The introduction of **new courses for non majors**
    - A107 - Programming Within Applications,
    - A150 - Understanding Operating Systems,
    - A201 - Visual Basic Programming,
    - A505 - Object Oriented Programming
    - A510 - Database Systems
    - A515 Telecommunications & Computer Networks

  - The introduction of a **new courses for majors**
    - B424 – Parallel Programming
    - C151 – Multi-user Operating Systems
    - C490 – Biomorphic Computing
    - C490 – Computer Vision

  - Scheduling of **more advanced courses**
    - B561 Advanced Database Concepts
    - P565 Software Engineering I
    - C499/B583 Game Programming & Design
Introducing our students to "professional issues" much earlier in the curriculum. (freshman and sophomore courses)

- Privacy,
- Security,
- Ethics, (new computer ethics course in philosophy)
- Piracy,
- Professional responsibilities of a computer scientist

Offering courses for the Master of Science degree in Management of Information Technology (MS-MIT) (A505, A510, A515).

Offering courses for the Master of Science in Applied Mathematics and Computer Science (A504, A506, B524, B538, B503, B561, B565, B581, B583)
Alumni Survey

“**What suggestions do you have for improving the computer science program at IUSB?**”

- I think the CS dept can offer more database related classes ...
- Less theory, more hands on ...
- Software quality is very important .. there is no courses in the quality assurance is offered.
- Senior project which gives students a hand-on practice in system development.
- More scholarships..
- Improving the technology lab/infrastructure..
- Offer classes more frequently
- Teach up-to-date languages..
In response to the question “What other comments would you like to make about computer science at IUSB?”

- …I wish I had more networking skills…

- …as a CS grad, I think we need to have both software and hardware concept/background.
Alumni Survey

- In response to the question “Are there computer science topics that were not covered when you were a student and that you now wish you had been able to study while at IUSB?”

- The respondent identified the following topics:
  - Computer Security
  - Business and Technical Writing
  - Web Design
Program Review

- This procedure is carried out once every seven years.

- The last review was conducted in 1999 and was reported previously. We plan to conduct our next program review during the summer of fall of 2006.
We know of a number of students who have entered graduate program however, we have no knowledge of their GRE scores.

- Thomas Michael Perez
- Jacob P. Ratkiewicz
- Nirmala Venkatraman
- Chaaban, Ibrahim
- Justin Robert Sante
- Timothy Wright (Ph.D. program)
- Jeffrey Hemmes (Ph.D. program)
Instructor/Course Evaluation Forms

- All computer science faculty members had each of their student fill out the department's official Instructor/Course Evaluation Form at the end of each semester.

- **Electronic Course Evaluation**: Starting Fall 2002, the department of Computer and Information Sciences has initiated the use of a web based evaluation system. Starting 2004, the department began using a home grown system known as IU-EVAL.

  http://www.eval.iusb.edu
Summary of Actions Taken

- Student Retention and Support Activities
- Developing New Programs
- Curriculum Evaluation and Development
- Improving Computer Science & Informatics Laboratories
- Long Range Planning
Summary of Actions Taken

- Student Retention and Support Activities:
  - Closed lab for C101
  - C101, C201, C243 tutoring
  - Support of the ACM Student Chapter (number of presentation by student, faculty and external presenters)
  - Development of IU-RETAIN (Design and development of an electronic retention tool.)
  - Extensive academic advising.
Summary of Actions Taken

- Developing New Programs:
  - MS in AMCS (Joint with Mathematical Sciences)
  - MS-MIT (Joint with B&E)
  - Informatics (Minor, Certificate, BS)
  - Certificate in Technology for Administration (Post baccalaureate certificate)
  - Certificate in Computer Applications (for non majors)
Summary of Actions Taken

- Curriculum Evaluation and Development:
  - Revising the existing BS program (in light of the new ACM/IEEE recommendations)
  - Review and revise the general education requirements based on the new campus general education requirements.
  - New courses for majors and non-majors
  - Introduction of embedded systems and Robotics in early computing courses (C335)
  - New course in Web programming (A340)
  - New course in Computer Security (A faculty in the area of security was just hired, and we will be offering a new course in security next year.)
  - A new course in Software engineering (graduate level, but available to undergraduates.)
Summary of Actions Taken

- Improving the Computer Science Laboratories:
  - Regular upgrading of lab computers (24 purchased last year, 10 purchased this year)
  - Maintaining up-to-date software
  - Developing lab tutorials for students
  - Creating a new graduate laboratory.
  - Creating a new multipurpose research laboratory.
Summary of Actions Taken

- Long Range Planning:
  - Developing a departmental 5 year plan to oversee the growth in the following areas:
    - New Degree Programs
    - Students
    - Faculty
    - Laboratories (Hardware, Software and Network)
    - Library Conspectus
    - Community Outreach
    - Accreditation
    - Research Infrastructure
Proposed Next Steps

- Develop a masters program in software engineering.
- Refining our bachelors program in Informatics.
- Prepare for external review (7 year review)
- Prepare for accreditation of our B.S. in Computer Science by the Computer Science Accreditation Board (CSAB).
- Continue to refine our joint masters program with the Department of Mathematical Sciences (M.S. in Applied Mathematics and Computer Science).
- Continue to refine our joint masters program with School of Business and Economics (MS-MIT).
Results...

- 175 declared majors
- Graduating 18 with BS (Maybe!!)
- Graduating 4 with AS
- 30 Students in the MS in AMCS
- 40 students major in informatics.
- 100% Employment.
- Average salary $40K to $50K