Computer Science, BS
Assessment Plan

The Performance Indicators (PIs) for the CS Department's undergraduate program serve as the foundation for assessment data collection and analysis.

PIs are assigned to undergraduate core courses and are mapped to ABSET Student Learning Outcomes (see Curriculum Map). Based on defined assessment cycle, specified courses will provide data for assessment, and the results of data analysis will lead to improvement actions.

ABET has defined the following six SLOs (Student Learning Outcomes):

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

Formative and summative courses for each performance indicator are specified and categories of the student assessed work into Satisfactory, Developing, and Unsatisfactory for each performance indicator are defined. The SOs have been decided to match perfectly the University Undergraduate Student Learning Goals, the Success of achieving a goal are defined as follows:

1. At the formative level (sum of all measurements of the PIs at the formative level) needs to be greater than or equal to 60% for developing or satisfactory
2. At the summative level (sum of all measurements of the PI at the summative level) needs to be greater than or equal to 80% for developing or satisfactory and greater than or equal to 60% for satisfactory

When there is only one course being measured, then the Success is defined as:
      The criteria for success is that 60% of instruments evaluated be in the Satisfactory category, and that 80% be in the combined Satisfactory and Developing category.

2. Assessment Process, Cycle, and Plan

Assessment and improvement are on doing activities. Fig 1 shows the assessment process that guides CS undergraduate program's assessment activities,
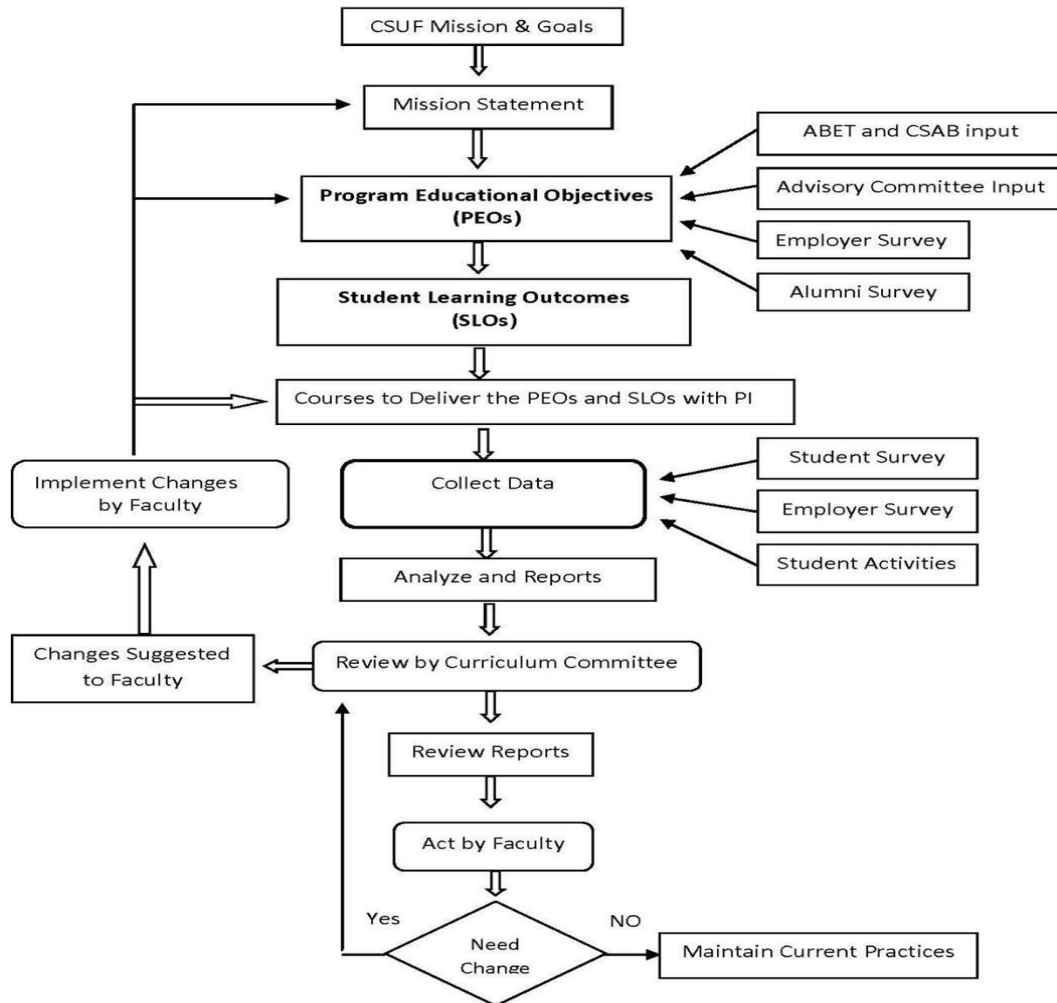
Fig. 1: Assessment Process

For most updated information, please contact the Department.

Table below defines the data collection cycle and comprehensive analysis is conducted annually.

Semester	120	121	131	223	240	301	311	315	323	332	335	351	362	440	471	481	Exit Survey
Spring		x	x	*							x	x	x	x			x
Fall	x				x	x	x	x	x	x					*	x	

Data collected are analyzed, the analysis results with other inputs are used as the improvement driver. The data will also be used to measure the progress made in curriculum improvement effort.

Leading up to the ABET visit in Fall 2020, the following activities are planned:

AY 2016 – AY 2020, Continue to collect and analyze data, plan and implement improvement initiatives
AY 2018 – AV 2020, Prepare for upcoming ABET visit and complete the self-study report.

The CS department is aimed to develop and maintain a routine on-going assessment and improvement mechanism, so all relevant stakeholders are involved in this effort. The whole process is institutionalized and repeated.

For most updated information, please contact the Department.