

Assessment for Continuous Improvement

I. Introduction

Outcome Assessment is an ongoing process that refers to the collection and analysis of information pertaining to the academic programs. The result of the assessment process provides information, which can be used to determine whether or not the intended student outcomes are being achieved and how the program can be improved.

This Assessment Plan depicted in figure I- 1 and I- 2 is developed to enhance the goals and the objectives of the Electrical and Computer Engineering Technology Department, contribute to the accomplishment of the mission of the School of Engineering Technology and Management; and to complement the University mission, goals and objectives. A significant part of this plan is the assessment of student academic achievements or outcomes, and using the results of the assessment to make any changes needed for program improvement. Several systematic methods are employed to gather and review information from different sources such as, faculty, students, career services, employers, alumni, and industry.

Our goal is to prepare graduates for successful careers as Engineering Technologists capable of functioning in industry, government, and business. We strive for continuous improvement in two ways. First, our curriculum is up to date and includes the knowledge and skills required by the industry. Second, our curriculum is continuously reviewed and the effectiveness of our teaching is assessed in light of feedback obtained from graduating students (exit interview), alumni and employers (regular questionnaires and surveys). This input is collected from the surveys of the Career Services and also surveys and direct contact of our own faculty with employers and alumni.

The ECET Department will continually strive to relate the student outcomes to professional practice, career achievement, and civic contribution. Therefore, the ECET Department Plan is designed to meet the increasing demand for graduates who can demonstrate adaptability to rapidly changing technologies, to increasingly complex multinational markets. The assessment measures in this plan are broad enough to encompass the educational benefits of programs in our department for students preparing for careers as technologists.

Model Hierarchy:

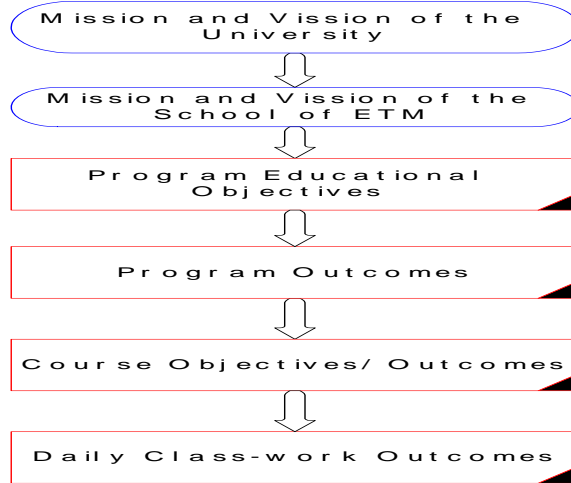


Fig. I- 1 Continuous Curriculum Assessment and Improvement Process

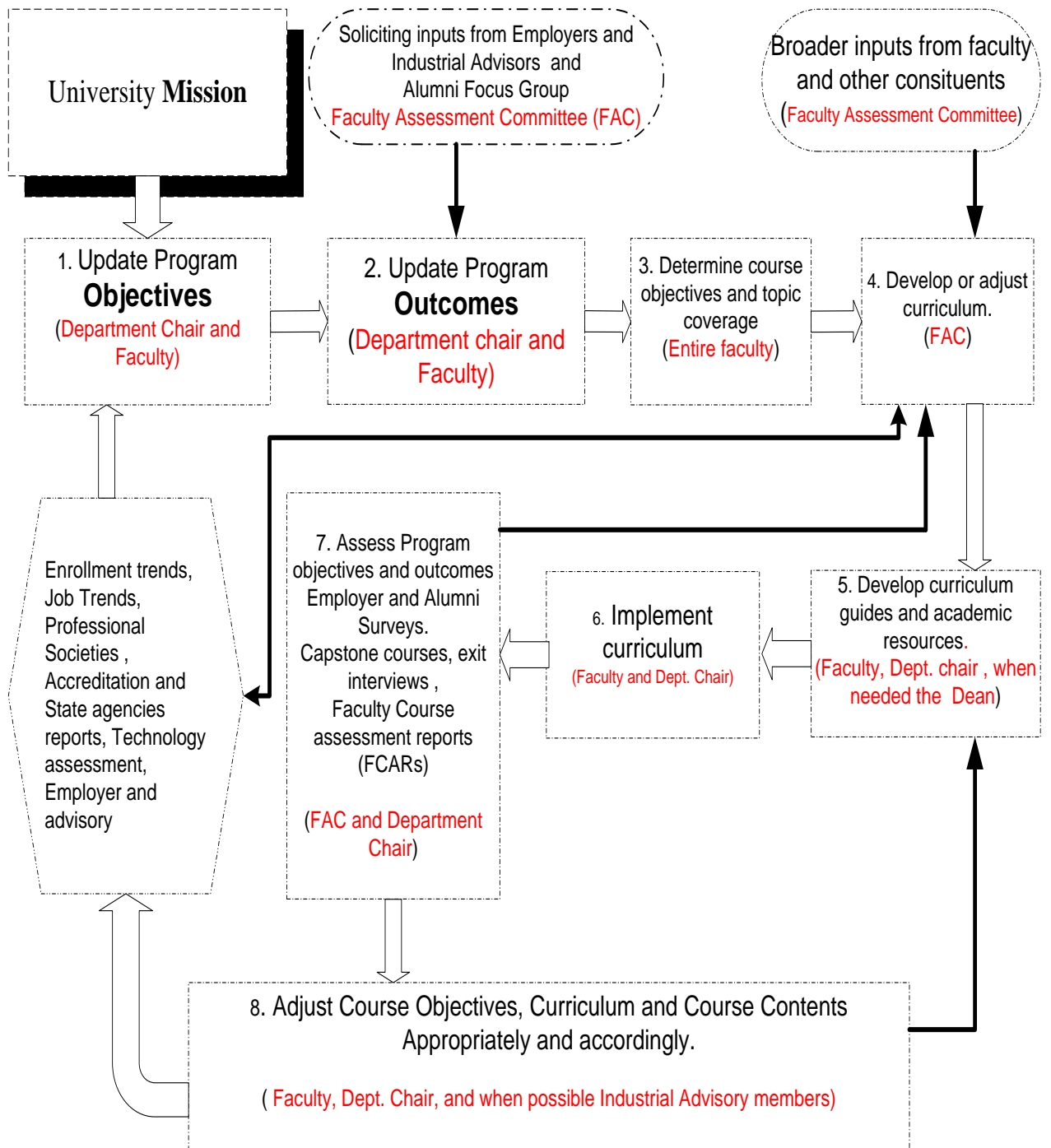
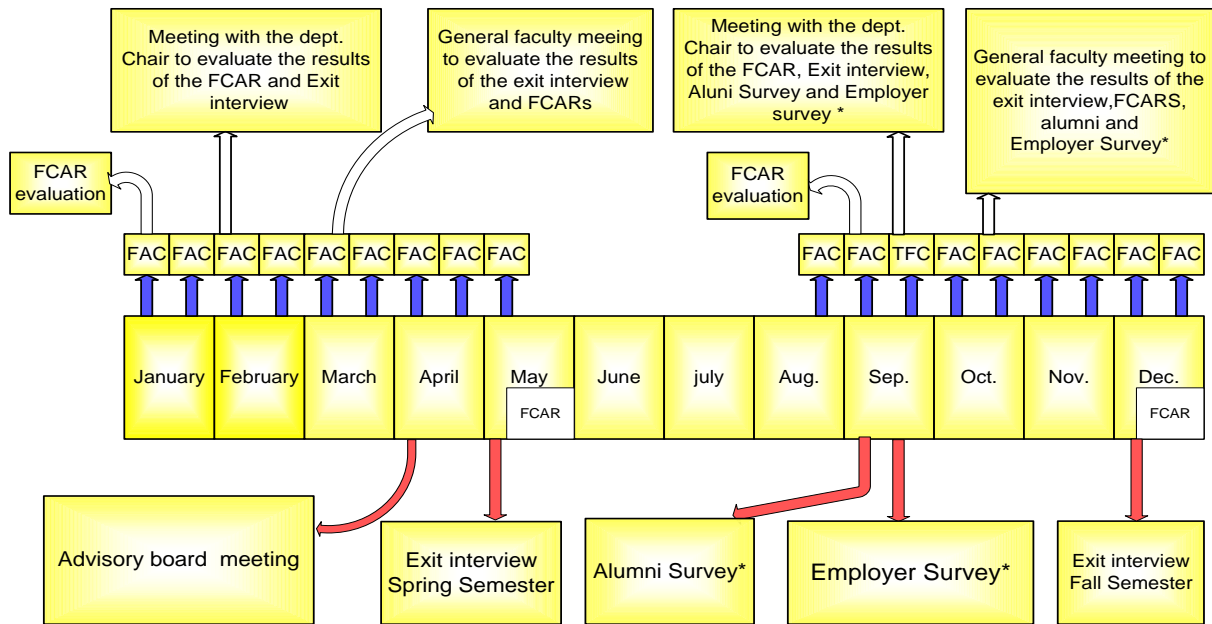


Fig. 1. 2 Timeline for the process of assessment and evaluation of the Program Educational Objectives and Outcomes



Legend

FAC : Faculty Assessment Committee
 FCAR: Faculty Curriculum Assessment Report
 * Employer and Alumni Surveys that takes place every three year

II. Assessment Tools

The ECET Department strives to achieve its goals and objectives by continuous assessment and evaluation of the intended Educational Objectives. Therefore, the following quantitative and qualitative assessment tools are employed to measure the listed objectives

A. Alumni Survey

This assessment tool will be used to determine the graduates’ evaluation of the education they have received from our institution, and their individual work performance in comparison with the work performance of graduates from other institutions. This is one of the most important components to be used in assessing the undergraduate students’ outcomes. Graduates are also asked to supply the name and the address of their employer so that a questionnaire may be sent to the employer. A sample of the survey cover letter and survey form are shown in this document. These forms are constantly under revision to more accurately assess the expected outcomes.

B. Employer Survey

This form is sent only to employers of graduates who have granted permission for us to contact their employer. This form allows the employer to rate the graduate in terms of technical ability and communication skills. Major weakness and other comments may also be provided. A sample of this form is also shown in this document.

C. Industrial Advising Board

This Board consists of 12 representatives from local industry and all fulltime faculty of the respective program. The industrial advisory board for each program is charged with reviewing program content, course content, and technical focus to maintain program currency. To this end the results of the outcomes assessment process will be made available to the Industrial Advisory Boards for discussion and action. Specific recommendations are made in regard to any changes in course or program content and focus. The Industrial Advisory board meets at least once per year.

D. Job placement

Feedback from the University Career Services office will provide job placement rates, feedback from the campus interviews regarding student's performance, technical knowledge, aggregate starting salary data, and their communication skills during their interviews. This method is a direct qualitative measure that reflects the student's performance, and it will be used as a baseline for student's learning in the department.

In addition to those, the department conducts in a regular manner the following assessment tools such as Exit Interviews and Course Sequence Assessment Tests.

II. Assessment of Program Outcomes

Similar to the assessment of the program educational objectives, the established program outcomes are assessed on an ongoing periodic basis. The assessment of program outcomes occurs each semester. The process begins with data collection using the assessment instruments listed below in Table II-1 . Also included in the table is the schedule of assessment and performance metric for the program outcomes. Three assessment tools are used, Senior Exit Interview/survey, Faculty Course Assessment (FCAR), Alumni Focus Group, and Industry Advisory Board. Alumni Focus Group are a group of recent graduates who are in constant contact with our faculty. In addition to the formal survey their input and feedback is constantly solicited by our faculty and discussed in the Faculty Assessment Committee meetings

Table II- 1 EET Program Outcomes Assessment Timeline and Performance Metric

Assessment Instrument	Schedule	Performance Metric
Senior Exit survey	Every semester	70% respondents respond 80 % positive
Industry Advisory Board meetings	Once a year	100% (unanimous approval)
Alumni Focus Group	Once a year	80% respondents respond 80 % positive
Faculty Course Assessment Report (FCAR)	Every semester	Depends on the course , usually 75% positive response is expected

III. Feedback to the Faculty

Faculty course assessment records, exit interviews, alumni surveys, alumni focus group feedback will be discussed by the Faculty Assessment Committee (FAC) and reported annually to the faculty and the Industrial Advisory Boards, thereby providing feedback to each program. The faculty members will be informed on a regular basis about the results of the assessment process. Information are posted for their use on the website.. Departmental faculty meetings will be held in fall and winter semesters to review the results of the assessment process, and make appropriate recommendations for improvement or required curriculum changes in the department. The faculty will formulate the required curriculum changes and make necessary recommendations to the university curriculum committee.

Following collection of the data, the departmental assessment coordinator, currently Dr. Omar Zia, along with a departmental support person Mrs. Linda Lewis collates the relevant data. The data is then presented to the ECET Faculty Assessment Committee for review, discussion, and actions that may be needed based on the analysis. The committee members include all program coordinators currently: Prof. W. Hodges EET, Prof. Scott Stippens CpET and Dr. T. Fallon TCET. The committee meets on a regular basis at least once at the beginning every semester. The objective is to discuss and review the results of direct and indirect assessments such as FCARs, exit interview, IAB meetings, Alumni survey and employers survey. In case there is a need for a change or modification the decision is first discussed with the department chair and then presented to the ECET general faculty meeting

This approach allows for timely review of the data as it is produced and prompt action, if needed. The process for assessment and their measures is maintained in the ECET Department office and coordinated by the departmental assessment coordinator. Questions in the surveys are directly linked to the achievement of the performance metric for each objective.