

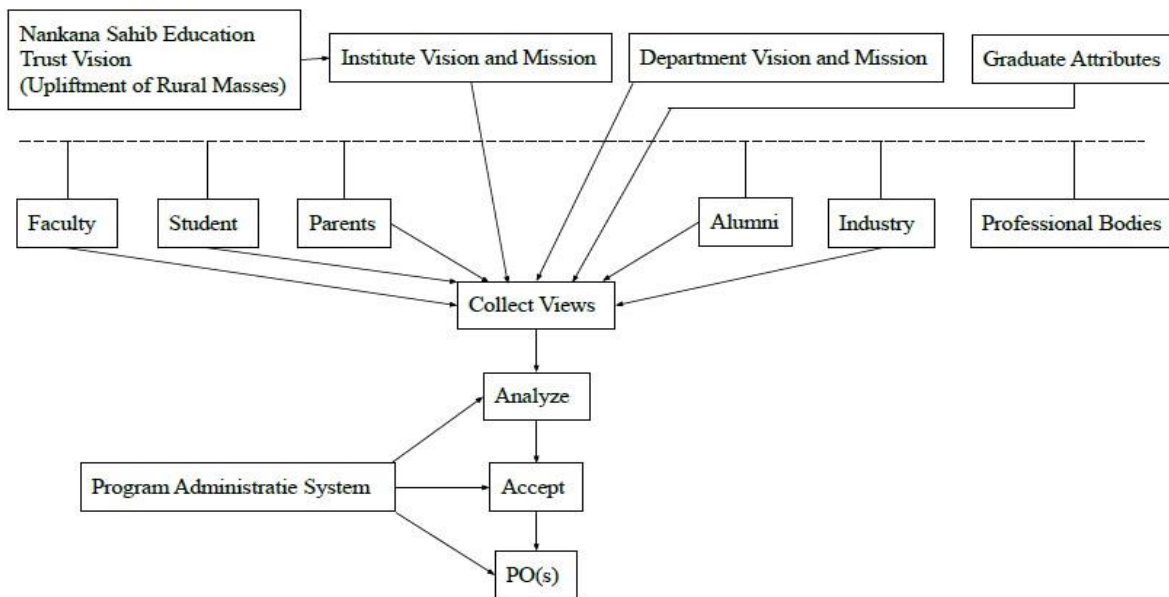
Process for Defining Vision and Mission of the Department

The department establishes the vision and mission through consultative process involving the stakeholders of the department, the future scope of the department and societal requirements as shown in figure below. In establishing the vision and mission of the department, the following steps were followed:

Step1: Vision and mission of the institute are taken as basis

Step2: Views are taken from stakeholders of the department such as industry, management, parents, and professional bodies

Step3: The accepted views are analyzed and reviewed to check the consistency with the vision and mission of the institute.



Flow chart of defining Program Outcomes [PO(s)] of the Department

Program Educational Objectives

- I. Practice with an expertise in academics, entrepreneurship, design and development in production technology, or research in a specialized area of production engineering to pursue higher studies.
- II. Exhibit analytical, decision-making and problem solving skills by applying research & the design of principles for handling real shop floor problems with realistic constraints.
- III. Ability to communicate the findings or express innovative ideas in an effective manner with an awareness of professional, ethical and social responsibilities.

Stakeholders of the program

The stakeholders of the program are students, faculty, alumni, employer, parents, etc.

Student

- Students feedback is considered to introduce innovative teaching and learning methodologies
- Students input will help in program to introduce the elective courses to meet current trends.

Faculty

- Plays a vital role in working of the program.
- Faculty is involved in various committees to check the consistency of the program and its assessment at different levels.
- Faculty provides inputs for designing the program, PEOs/POs establishment, course outcomes

Alumni

- Alumni help in measuring of the long term success of our program.
- Alumni feedback helps in curriculum design to meet recent trends in engineering.
- Recollect their existence during their program study and advise the department with necessary inputs in point of student career.
- Alumni also help in assessment of Program Outcomes and Program Education Objectives by participating in alumni survey.

Employer/ Industry

- Represents the major end users of our graduates.
- Gives higher focus to the program on future data to create awareness with current industry.
- Gives inputs which overcome the gap between program and industry.
- Helps in assessment of Program Outcomes and Program Education Objectives by participating in survey.

Parents

- Expects their wards in good professional career and higher education.
- Parents are informed for the short of attendance/ progress of their wards for further corrective action (if required).

Process for establishing the PEOs

The PEOs are evolved in consultation with industry, alumni, students, management, professional bodies, faculty, parents, etc. and taking into account data on future, data on trends in development in the profession etc. Also the summary of views during consultation part is taken, and then accepted views and objectives are identified. Then the process of identification and designing of courses is started with defined objectives which include both elective and core courses. Finally the courses are taught in a way to achieve stated objectives.

How the administrative system helps in ensuring the achievement of the PEOs

The Managing Committee, appointed by Nankana Sahib Education Trust comprises members from Central Government, State Government, Punjab Technical University, AICTE, Trust and College staff representatives. MC reports to the trust. The Principal being Head of the institute is responsible for overall development of the college. The Head/Deans look after general administration of their respective Branches/Sections. The Deans are appointed from the senior faculty as section in-charges to help the principal in running the administration.

The following committees have been constituted in the department to achieve and ensure meeting of the PEO's

Board of studies	This committee is chaired by Professor & Head of department and consists of various subject experts from institutes of repute (both academia and field/industry) along with senior faculty of the department representing all subject domains. This committee is responsible for modifying / updating/ altering the curriculum on recommendations of academic committee.
Academic committee	This committee is headed by O/Ic (academic) and other faculty members to help him. This committee decides the subjects to be allotted to various faculty members in view of their expertise, exposure to related field/practical problem and experience. The committee ensures that PEO and CO for various subjects are satisfied/achieved at end of each semester. The committee instructs and gives necessary guidelines to the faculty in preparing and maintaining the course files, content delivery etc. Feedback (both course exit and faculty)from the students is taken by this committee to assess the outcome of each subject and how this has helped to achieve the PEO/CO.
Exam conduct committee	This committee is headed by senior faculty member other faculty members to help him in the conduct of mid semester examinations. The committee ensures that question papers are satisfactory and adequate to achieve the related PEO/CO as per the course plans and advises the faculty in this regards.
Attendance, sessional marks compilation and display committee	This subcommittee works under O/Ic (academic) and analyses the attendance, internal marks record of students and see the outcome of each course in light of identified PEO and CO.
Enquiry and grievances committee	The committee works under senior faculty member and consists of other faculty members including one female member and is responsible for redressing the grievances of students and faculty/staff members.
Result analysis committee	This subcommittee works under O/Ic (academic) and analyses the final result of students and see the outcome of each course in light of identified PEO and CO.

Process of achieving the PEOs

PEOs relate to the career and professional growth/accomplishments of students after they graduate from the program. Consequently, assessment and evaluation of the objectives requires assessment tools that could be applied after graduation in addition to the contribution of the curriculum, placement record and performance of students in extra and co-curricular activities, performance of students in entrance exams etc. The documented processes and other tools used in the assessment of the achievement of the PEOs along with the frequency are given in following tables.

PEO	Tools/Processes	Frequency
1.	Sessional and Evaluation record of students	Twice in a year
	Employers' survey	Once in a year
	Alumni Survey	Once in a year
	Assessment by National/International Professional Bodies	Once in a year
2.	Sessional and Evaluation record of students	Twice in a year
	Alumni Survey	Once in a year
	Student Feedback and student exit survey	Twice in a year
3.	Alumni Survey	Once in a year
	Employers' survey	Once in a year

Assessment Process and Methods:

PEO1:

Practice with an expertise in academics, entrepreneurship, design and development in production technology, or research in a specialized area of Production Engineering to pursue higher studies.

PEO1	Assessment Tool	Assessment Criteria	Data Collection	Goal
Practice with an expertise in academics, entrepreneurship, design and development in production technology, or research in a specialized area of Production Engineering to pursue higher studies.	Alumni Survey	(i)How do you rate your skills in the field you are pursuing?	Once in a year	60-70%
	Employer Survey	(i)How do you rate the skills of our postgraduates in the field they are pursuing?	Once in a year	65-75%

PEO2:

Exhibit analytical, decision making and problem solving skills by applying research & the design of principles for handling real shop floor problems with realistic constraints.

PEO 2	Assessment Tool	Assessment Criteria	Data Collection	Goal
Exhibit analytical, decision making and problem solving skills by applying research & the design of principles for handling real shop floor problems with realistic constraints.	Alumni survey	(i)How often analytical, decision making and problem solving skills do you apply in handling real life problems within realistic constraints?	Once in a year	50-60%
	Employer/ Industry Survey	(i) How often analytical, decision making and problem solving skills do our postgraduates apply in handling real life problems within realistic constraints?	Once in a Year	50-60%

PEO3:

Ability to communicate the findings or express innovative ideas in an effective manner with an awareness of professional, ethical and social responsibilities.

PEO3	Assessment tools	Assessment Criteria	Data Collection	Goal
Ability to communicate the findings or express innovative ideas in an effective manner with an awareness of professional, ethical and social responsibilities	Thesis Work	M. Tech thesis guided by Faculty	Once in year	60-70%
	Alumni Survey	(i) How well do you communicate ideas in an impressive and professional manner?	Once in year	70-80%
		(ii) How competent are you in meeting your professional, social & ethical responsibility?		75-80%
	Employer Survey	(i) How do you rate the postgraduates' soft skills in terms of expressing their ideas?	Once in year	70-80%
		(ii) How much competent the postgraduates are in understanding professional, social responsibility and recognizing the ethical dimensions of company's decisions?		60-70%

Achievement of the PEOs

Program Educational Objective 1 (PEO 1):

Practice with an expertise in academics, entrepreneurship, design and development in production technology, or research in a specialized area of Production Engineering to pursue higher studies.

The expected level related to alumni survey for PEO1 is as follows:

Expected level of Assessment Criteria of Alumni Survey for PEO1:

Assessment Criteria	Assessment		
	Highly Competent	Competent	Beginner
(i) How do you rate your skills in the field you are pursuing?	60-70%	30-40%	10-20%

PEO2:

Exhibit analytical, decision making and problem solving skills by applying research & the design of principles for handling real shop floor problems with realistic constraints.

PEO 2	Assessment Tool	Assessment Criteria	Data Collection	Goal
Exhibit analytical, decision making and problem solving skills by applying research & the design of principles for handling real shop floor problems with realistic constraints.	Alumni survey	(i)How often analytical, decision making and problem solving skills do you apply in handling real life problems within realistic constraints?	Once in a year	50-60%
	Employer/ Industry Survey	(i) How often analytical, decision making and problem solving skills do our postgraduates apply in handling real life problems within realistic constraints?	Once in a year	50-60%

PEO3:

Ability to communicate the findings or express innovative ideas in an effective manner with an awareness of professional, ethical and social responsibilities

PEO 3	Assessment tools	Assessment Criteria	Data Collection	Goal
Ability to communicate the findings or express innovative ideas in an effective manner with an awareness of professional, ethical and social responsibilities	Thesis Work	M. Tech thesis guided by Faculty	Once in year	60-70%
	Alumni Survey	(i) How well do you communicate ideas in an impressive and professional manner?	Once in year	70-80%
		(ii) How competent are you in meeting your professional, social & ethical responsibility?		75-80%
	Employer Survey	(i) How do you rate the postgraduates' soft skills in terms of expressing their ideas?	Once in a year	70-80%

		(ii) How much competent the postgraduates are in understanding professional, social responsibility and recognizing the ethical dimensions of company's decisions?		60-70%
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