

# Objectives of Orientation Program

An Overview of the Day

21<sup>st</sup> May, 2016

# Outcomes as an Objective of Teaching

- As teachers, we implicitly know why we are teaching, and with what objective.
- Broadly we teach with a view to create understanding and insights.
- In real life, the insight must lead to empowerment: through knowledge, skills, attitude and behavior: Outcomes.
- Implicitly we know this, but rarely stop to check whether that is really happening.
- Outcomes Based Education: Essentially teaching with this awareness and associated effort.

# Accreditation: A simple definition

- **It is a Process by which:**

*The Institution being looked at is given a SEAL of approval by stakeholders in its activity - as meeting their **expectations.***

- (Stakeholders: Students, Govt., Industry, Faculty,...)

# Beyond Certification

- *However, its aim is not mere certification.*
- *It is a process which encourages continuous look at how you teach, what is its impact, and how to achieve the set objectives better.*
- *It should lead to a Continuous Improvement System.*



## Top-Level View

- NBA accredits about 1500 Tier 1 programs and a large number of Tier 2 programs in the country.
- Currently, NBA uses services of nearly 400 volunteers.
- Projected need: Much larger; More importantly: People who understand issues of quality and accreditation much better!
- *Quality and consistency of accreditation:* derives from the NBA volunteers.

# Today's Program

- Aimed as an Orientation Program for our Esteemed Volunteers: Experienced and New Volunteers.
- For the Experienced Volunteers: An opportunity to understand the new directions being pursued in Accreditation at NBA.
- For the New Volunteers: Brief them about the basic processes of accreditation.
- Focus Areas:
  - Outcome Based Accreditation.
  - Understanding the New SARs for Engineering (Tier 1 and Tier 2 Institutions).

# Today's Program

- Accreditation: No Rocket Science.
- Most of what we have to say: common sense.
- However, some familiarity required with basic systems and tools for accreditation.
- Providing that familiarity is the essential objective today.
- Experience as a Professional and in Accreditation: Key to being an effective PEV and Team Chair.

# Our Resource Team

- Surendra Prasad, Chairman, NBA
- Dr. Anil Nassa, Member Secretary, NBA
- Professor S.C.Sahasrabudhe, Former Director, DAIICT, Gandhinagar.
- Dr. Ranganath, BMS College of Engineering, Bengaluru
- Dr. Avichal Kapoor, Rasoni Group of Institutions.



# Presentation Outline

- In Two Parts.
- First Part:  
Accreditation as a tool for an institution towards continuous improvement of education  
: Closing the Loop.
- Second Part:  
Role and Responsibilities of the Visiting Team Chair and PEV.

# Closing the Loop

: Accreditation as a Tool for  
Continuous Improvement of Program  
Outcomes

# Focus on Program Outcomes

- Criterion 7 is concerned with continuous improvement in Student or Program Outcomes (Criterion 3).
- Note: Assessment of PEO's (Criterion 1) not easy.
- However PEO's important and relevant to vision and mission of the program and the institution, and the design of the program.
- Not to be discussed in this discourse.
- Program Outcomes: Central to Short-Term and Long-Term Improvements in Curriculum and Pedagogy.

# Curriculum

- Curriculum Design exercise in many Indian institutions:  
Examine the practices in some good institutions (IIT's), and adopt suitably.
- Workable, but not necessarily the best approach for your students and your objectives.

# Backward Design

- A Desirable Order of Goals

Improved Student learning: Four Dimensions

- Knowledge
- Skills
- Attitudes
- Behaviour

Improved learning Environment.

Faculty Efficiency and Efficacy.

Accountability to Stake-holders.

Accreditation.

# Goals as Seen by Many Institutions

- Goals: same, But in a Different Order

Accreditation.

Faculty Efficiency and Efficacy.

Improved Student learning

- Knowledge
- Skills
- Attitudes
- Behaviour

Improved learning Environment.

Accountability to Stake-holders.

# Faculty Engagement in Continuous Improvement

- Successful assessment requires faculty participation and engagement.
- Is their focus right?

Instead of:

- What do we have to do to get NBA accreditation?  
The focus needs to be:
- How can we effect improved student learning?

# Transformational Assessment

- Goals of Assessment: Information based decision-making.
- Transformational Assessment: Use assessment to help enhance student learning.
  - Change Pedagogy
  - Modify courses or facilities
  - Redesign curriculum
- Assessment  $\neq$  Exams, although Exams could form an important basis of assessment.



# Information basis

- Smart Data Collection is the Key
  - Collect data that would be useful.
    - Results of Relevant Exam Questions; Focussed Assignments; Lab practices, etc.
    - Build data collection as a part of course delivery.
  - Sufficient to provide a reasonable basis for action.
  - Data → Information.
  - Sufficient Granularity.
    - To cover range of outcomes and student competencies well.

# Criterion 7: Continuous Improvement

- Statement of NBA criterion not so crisp, although essence well captured in Criterion 3 and 7 seen together.
- More meaningful to look at the ABET statement.
- The program must **regularly** use appropriate, **documented processes** for assessing and evaluating **the extent to which the student outcomes are being attained**. The results of these evaluations must be **systematically utilized** as **input for the continuous improvement of the program**. Other available information may also be used to assist in the continuous improvement of the program.

# Closing the Loop

- This concept, although the essence of quality assurance, is also seen to be the **weakest link** in most institutions seeking accreditation.
- Most institutions fail to spend enough effort in **closing the loop**.
- Coming from an IIT, I would say, this is true even for the IIT's to a large extent.

# Why this weakness?

- After all, we all swear by continuous improvement! Then why this weakness? Several Reasons
- Lack of Leadership/Ownership: Understanding that improvement not simply an individual effort, but a formal collective process.
- Non-Compliant Faculty: Too Busy
- Ineffective Tools.
  - Discomfort with Assessment
  - Inconclusive Results

# Other Reasons

- Trying to do too much
  - Unsustainable
- Inadequate Resources
- Many more....

Where Do We Start?

If We Wish To.

# Management Plan

## Processes

- Collecting/Consolidating Assessment Data.
- Analyzing and Reporting.
- Evaluation

## Results

- Data
- Information
- Knowledge
- Decisions
- Curriculum/Pedagogy Improvements

## Improvement Actions

- Curriculum changes.
- Pedagogy
- Others.

# Primary Tools

- PO-CO Mapping: Understanding how Program Outcomes Embedded into Learning Outcomes for Individual Courses.
- Assessment Methods: Collecting Evidence for and Measuring the Extent of Learning imbibed by students.
- Developing Performance Indicators and Performance Rubrics.
- Analysis and Decision Making.



# Today's Agenda

- Understanding the nature of these tools and processes, which a program administration could deploy.
- Not prescriptive, but indicative of the possibilities.
- Immense Scope of Innovation by Individual Institutions and Programs.
- Evaluators: Need to examine if there is a genuine process developed by the faculty for assessing attainment of outcomes.

# Questions for Closing the Loop

(Are such questions being asked?)

- What do the findings tell us?
- Which improvements are critical for greater effectiveness:  
In curriculum, pedagogy, infrastructure, delivery systems?
- Did the changes implemented improve learning?
- How good is our assessment process? How can it be improved further?
- Express learning as a year-wise chart or Table, for a better appreciation.

# Need for Change of Attitudes

- From
- Grading
- Scoring right/wrong answers.
- Comparison of Students
- Secretive, Exclusive.
- Add On.
- Challenging Faculty.
- To
- Assessment
- Considering the whole reasoning process.
- Comparison to measurable outcomes.
- Public, Open, participative.
- Embedded.
- Helping Students.

Thanks for Your Attention