Suresh Angadi Education Foundation's

ANGADI INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Savagaon Road, Belagavi – 590 009.

(Approved by AICTE, New Delhi & Affiliated to Visvesvaraya Technological University, Belagavi)

Accredited by NBA* /NAAC

Warm Welcome to

Awareness Program on

Outcome Based Education (OBE)

AITM

Outcome Based Education - OBE

What do Engineers do?

- Prepare/ Make products/systems (plan, design, develop, manufacture, test, install, operate, maintain)
- Offer technical services
- Solve socially relevant technical problems in a innovative and creative way, and
- All the above activities are to be performed in a well – defined, professional and ethical framework.

Characteristics of Good Engineer considered important by the industries:

- Have sound knowledge of engineering sciences and technologies.
- Ability to solve well defined (structured) and ill-defined (unstructured, ambiguous) problems.
- Have awareness of customers needs and market trends.
- Have an interest and awareness in all the facets of engineering activities (Planning, Designing and optimizing, Finance, Marketing, Packaging, Staffing, etc.).
- Ability to work in a team.
- Imbibe skills such as technical writing, documentation, communication, presentation, decision making etc., and
- Willingness (Attitude, mindset) and ability to learn on the job (on the fly).

Traditional view of education Vs OBE view

Aspect	Traditional View of Education	Outcome-Based Education (OBE) View
Focus	Teacher-centered learning	Student-centered learning
Assessment	Based on exams and rote learning and memorization	Based on achieving learning outcomes
Curriculum Design	Fixed and subject-oriented	Flexible and outcome-oriented
Learning Approach	Passive learning, curriculum based teaching	Active learning, problem-solving, focus on experience learning
Success Measurement	Grades and completion of coursework	Achievement of specific competencies and skills
Teaching Methods	Standard methods, less flexibility for teachers	Adaptive methods based on student needs and requirements
Role of Teacher	Instructor and knowledge provider	Facilitator and mentor
Student Role	Receives knowledge	Engages in self-directed learning
Skill Development	Emphasis on theoretical knowledge	Focus on practical and transformative skills
Adaptability	Less adaptable to individual needs	Flexible and accommodates different learning styles and pace.

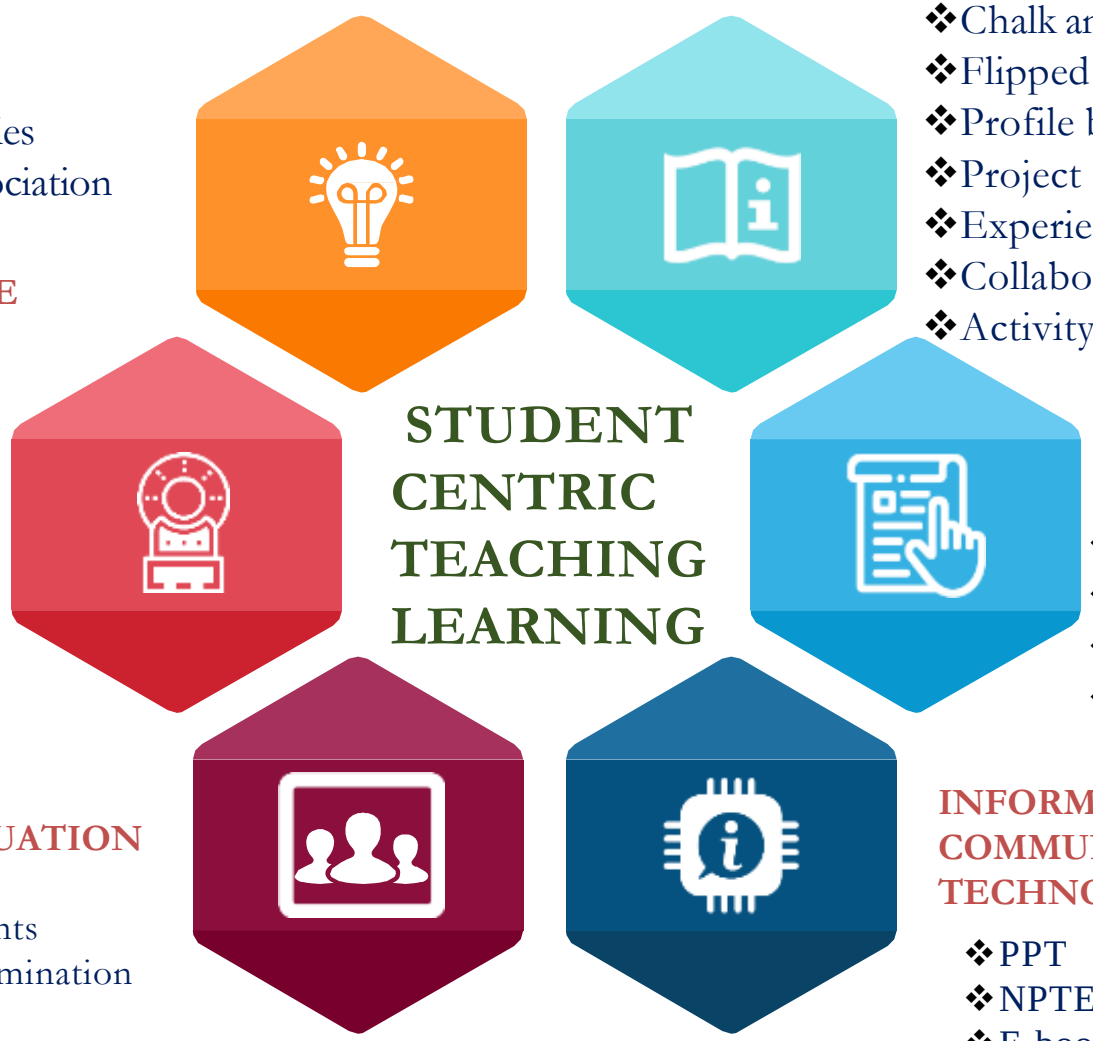
OBE – Student Centric

PROFESSIONAL/CLUB ACTIVITIES

- Club Activities
- Professional Bodies
- Department Association

LEARNING OUTSIDE THE CLASSROOM

- Seminars & Workshops
- Content beyond syllabus
- Internships
- Industrial Visit
- Industry Mentorship
- Alumni Mentorship
- AICTE Activity points



VARIOUS INSTRUCTIONAL METHODS AND PEDAGOGI INSTRUCTIONALCAL INITIATIVES

- Chalk and Talk
- Flipped Class room
- Profile based Teaching learning
- Project based Learning
- Experiential Learning
- Collaborative Learning
- Activity based Learning

ACADEMIC PLANNING AND INSTRUCTION DELIVERY

- Academic Plan
- Lesson Plan
- Class Conduct
- Lab Conduct

STUDENT EVALUATION

- Module Tests
- Internal Assessments
- End Semester Examination
- Assignments
- Quiz

INFORMATION & COMMUNICATIONS TECHNOLOGIES (ICT)

- PPT
- NPTEL
- E-book links (Website)
- Video Lectures / Animation

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Outcome Based Education - OBE

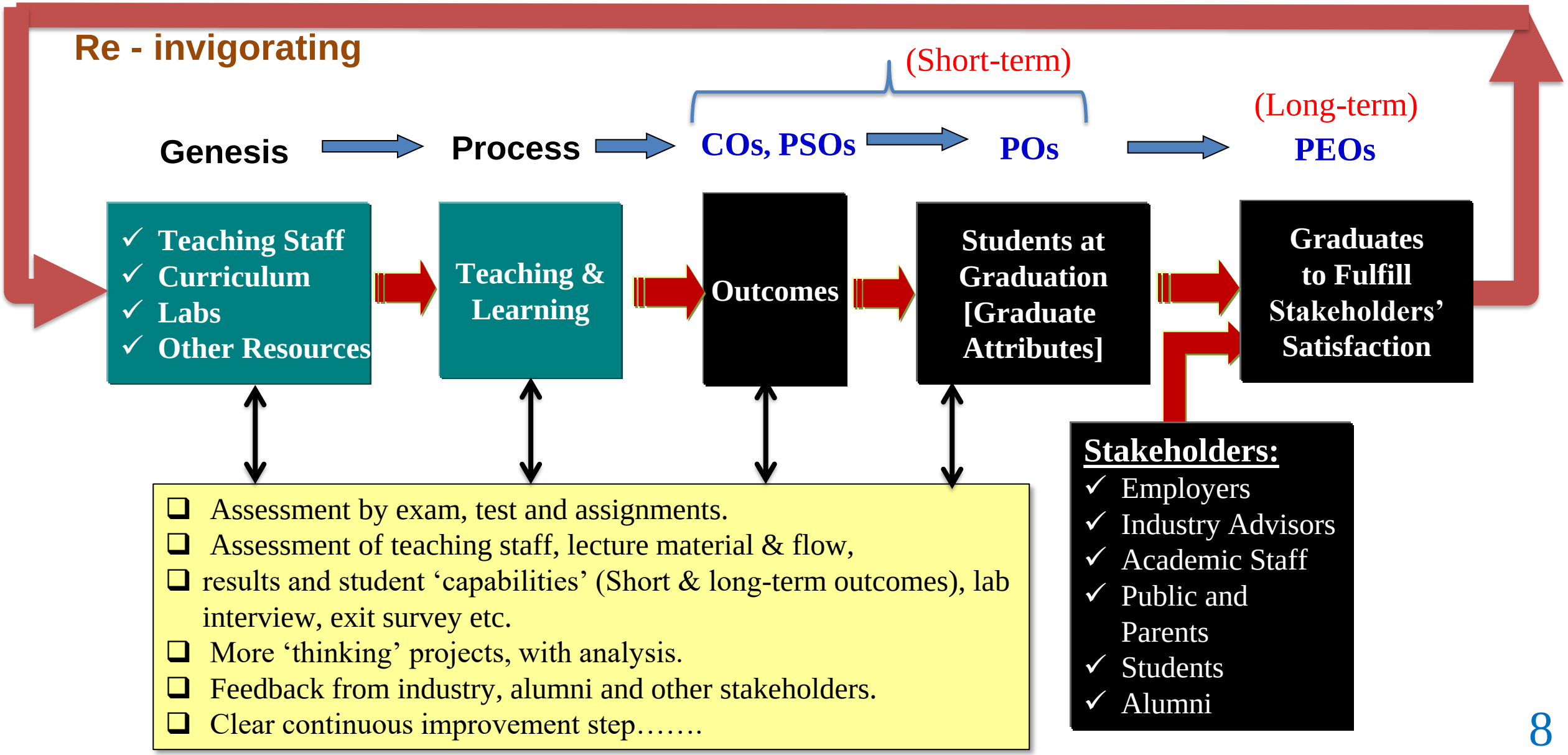
- An outcome is what the learner will be able to do/perform as a result of some learning taking place in classrooms and labs.
- Focuses on the objectives and the outcomes of the program (UG, PG, etc).
- Requires evidence of measurement and attainment of objectives and outcomes, and
- Lot of data may be collected and analyzed periodically so that teaching-learning methodology can be improved.

Hence, Faculty are required to maintain files, documents and provide required data, etc. to meet the requirements of OBE.

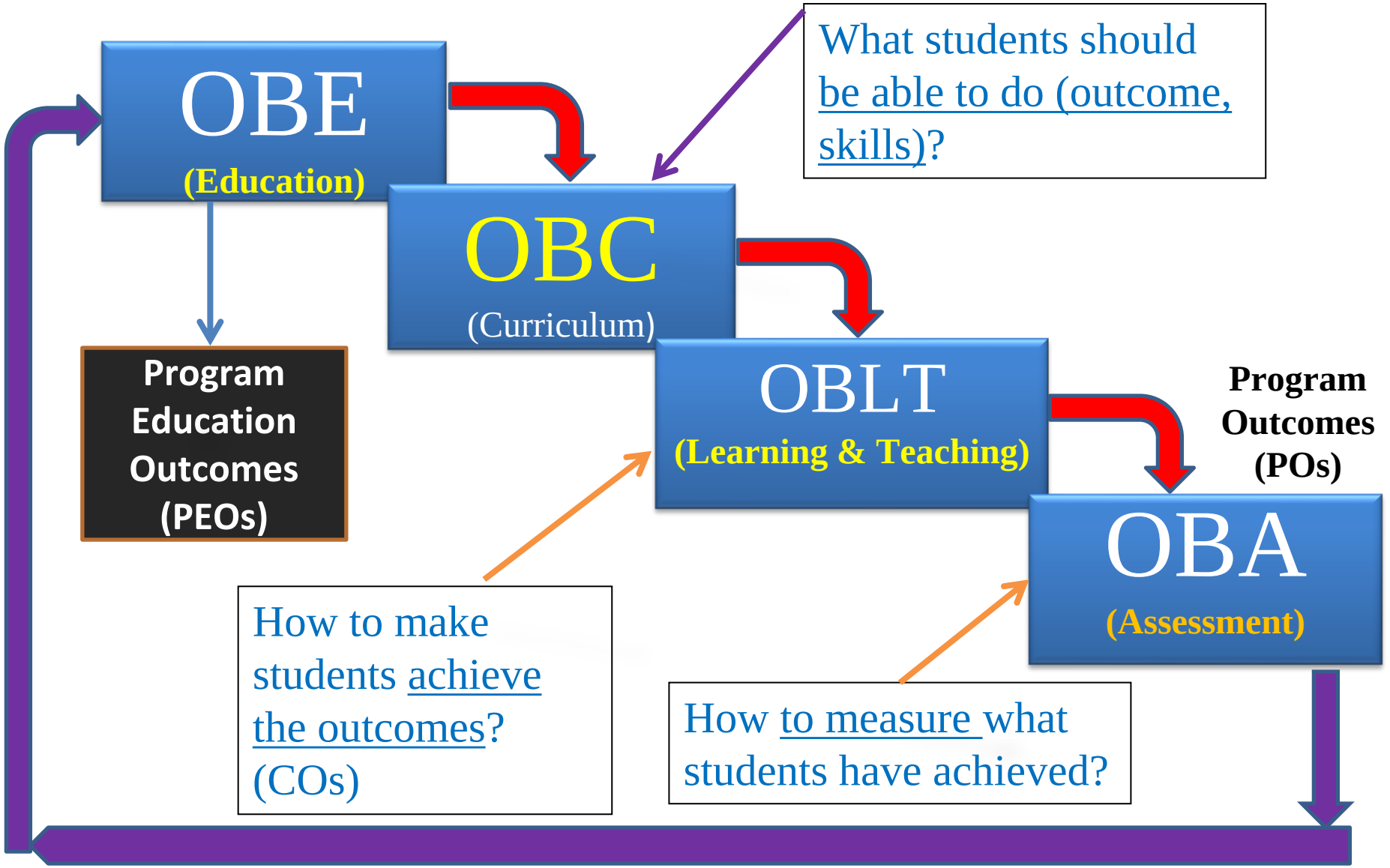
Definitions: OBE

- Program Educational Objectives (PEOs): PEOs are broad statements that describe the career and professional accomplishments in *four to five years after graduation* that the program is preparing graduates to achieve.
- Program Outcomes (POs): POs are statements that describe what the students graduating from engineering programs *should be able to do at the time of graduation.*
- Program Specific Outcomes (PSOs): PSOs are statements that describe what the graduates of a *specific engineering program should be able to do at the time of graduation.*
- Course Outcomes (COs): COs are statements that describe what *students should be able to do at the end of a course.*

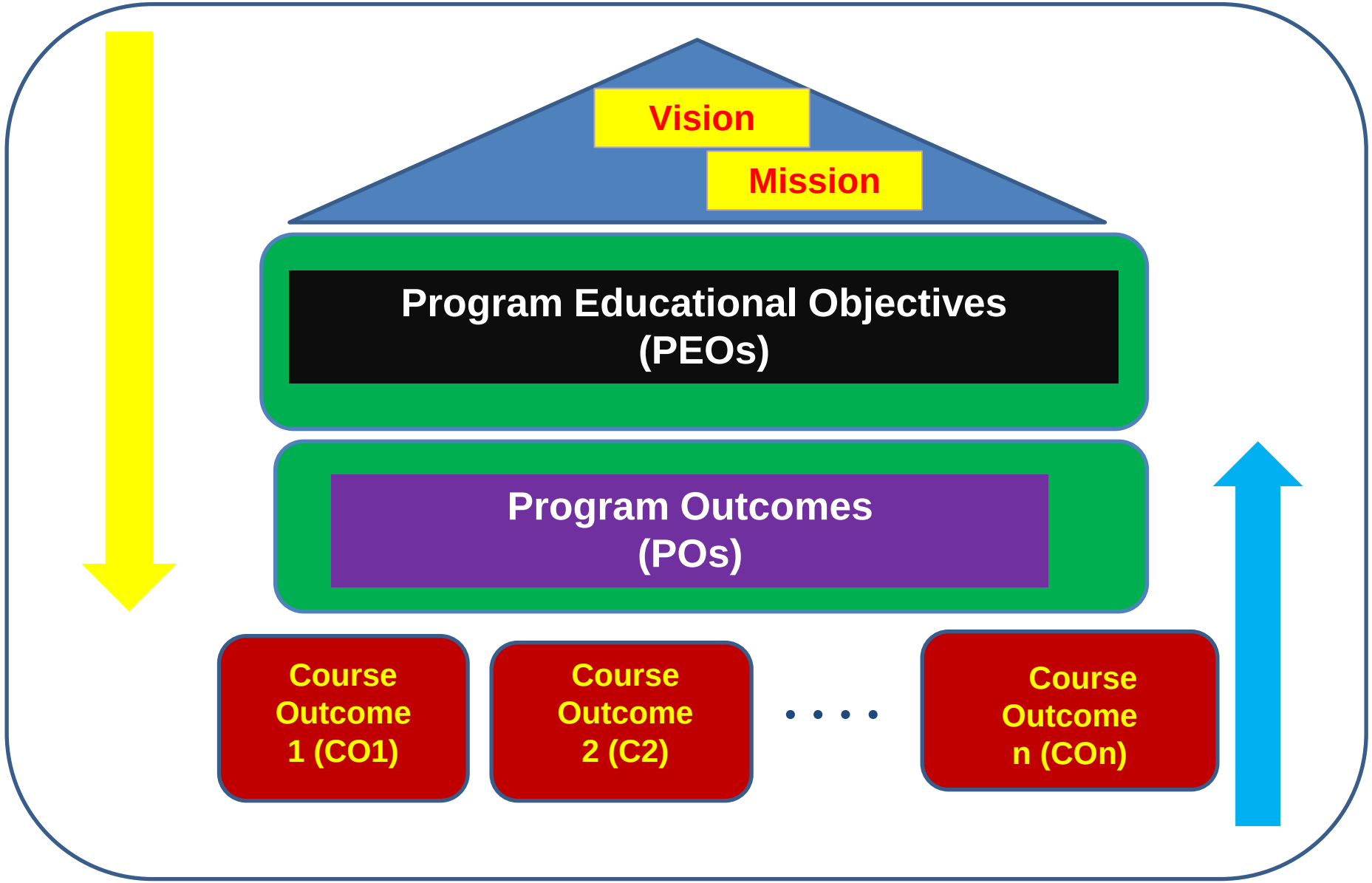
The OBE Framework



Outcome Based Education - OBE

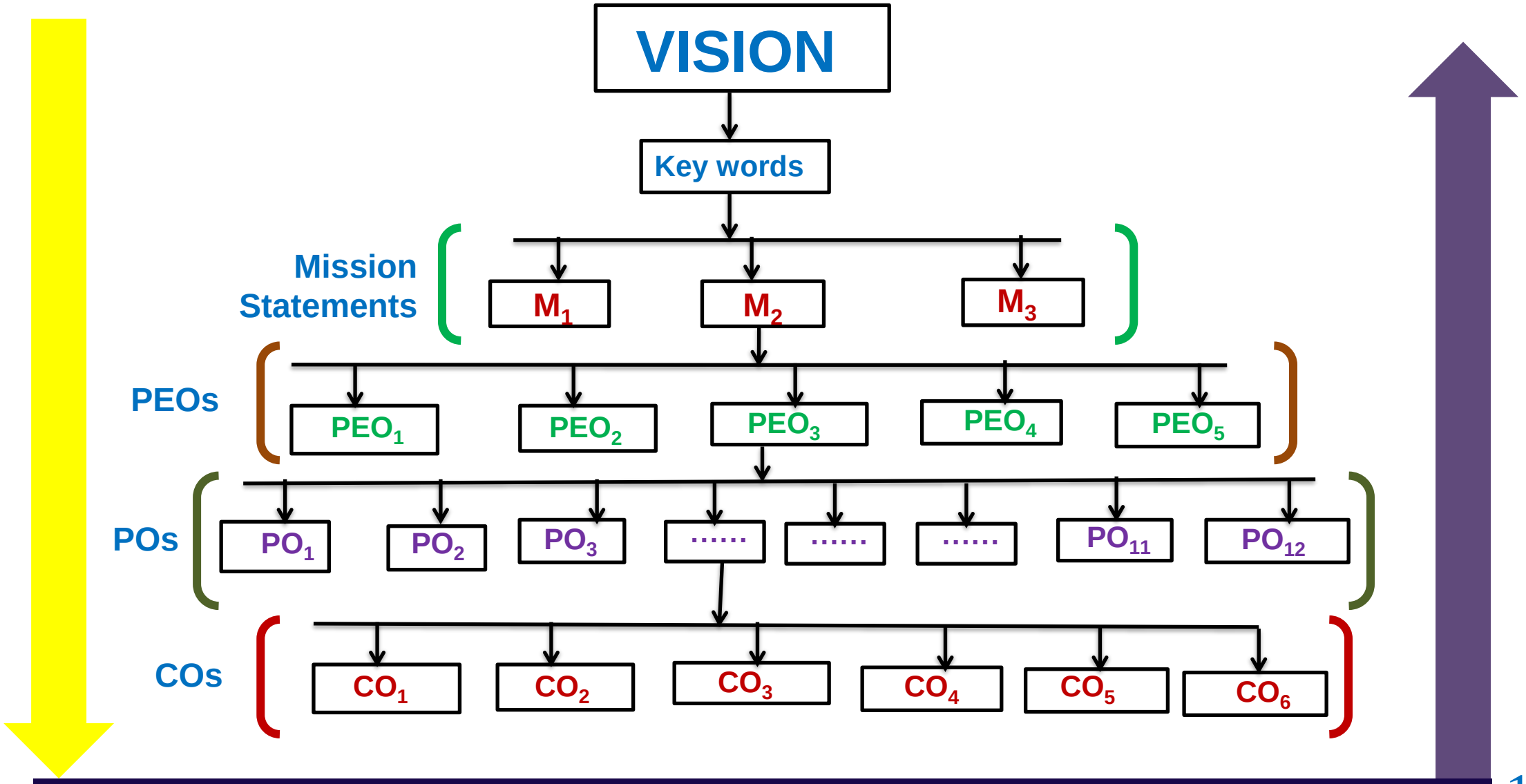


Key Constituents of Outcome Based Education - OBE

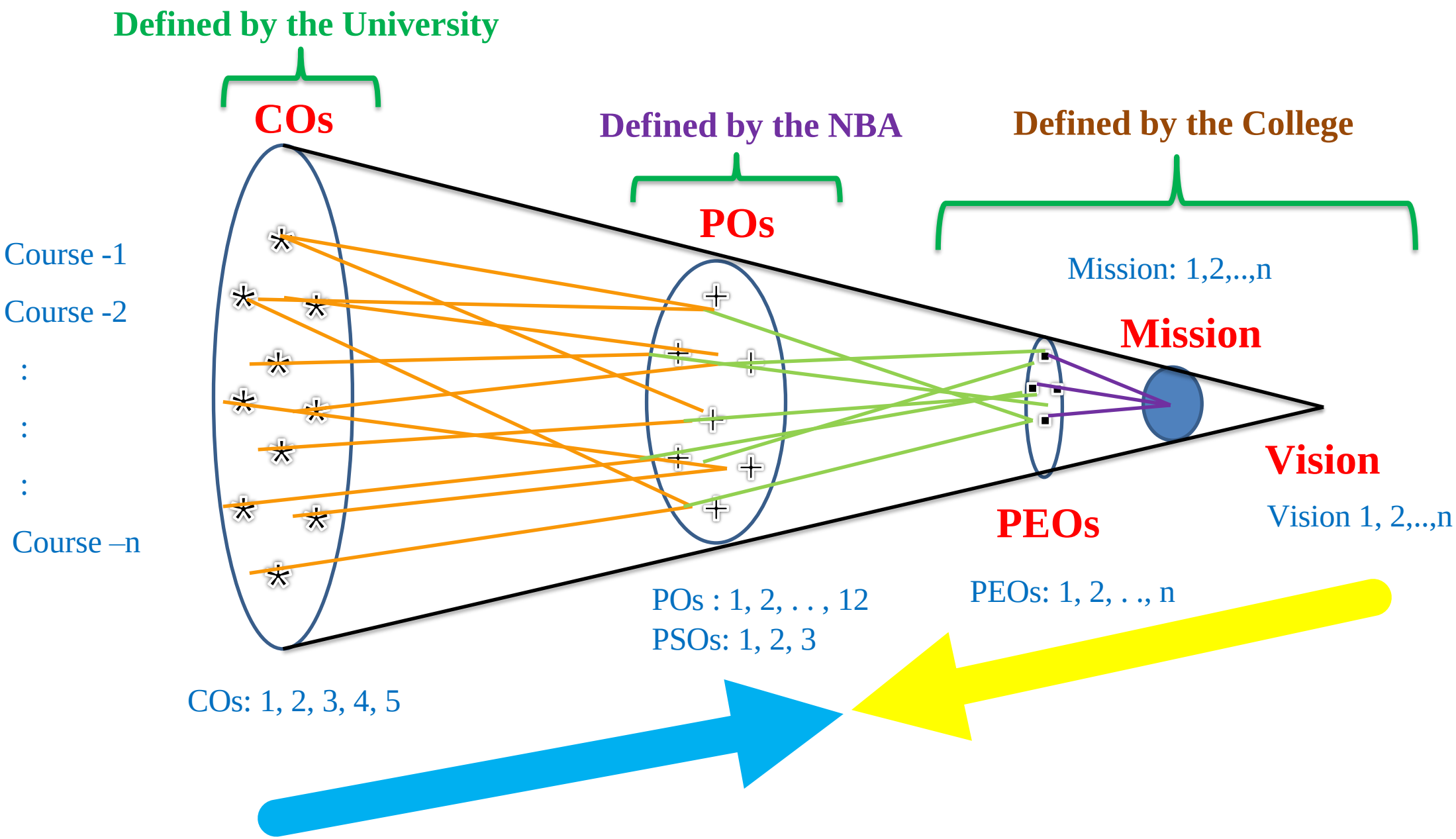


The AITM Process to Achieve the Institute Vision

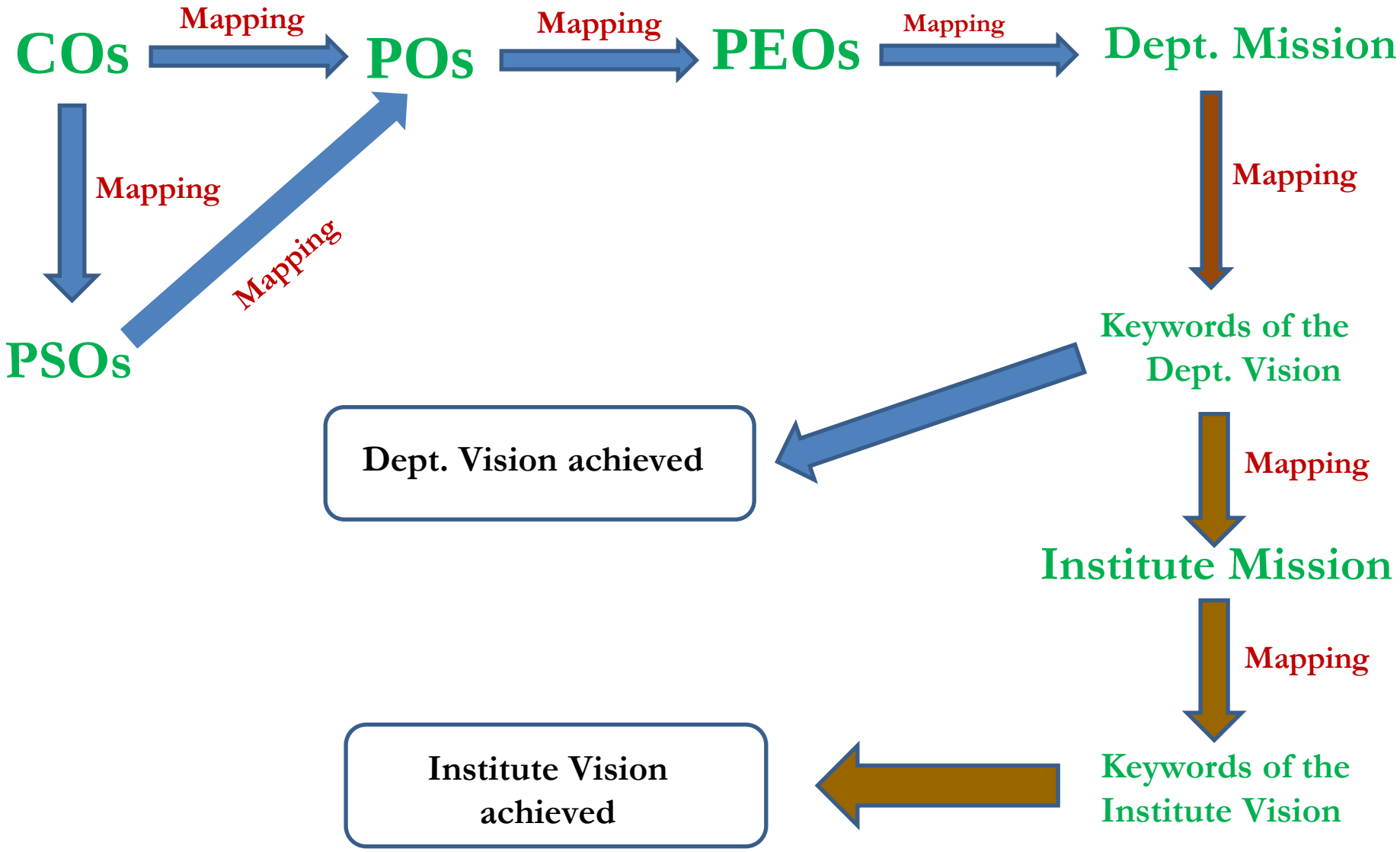
OBE Implementation



How do COs, POs, PEOs Mission and Vision relate in an Affiliated Institution



The Mapping Process



Program Outcomes (POs)

- The first 5 POs are directly related to engineering skills (i.e., Domain dependent) and are emphasized in curriculum and teaching-learning process

  PO1: Engineering knowledge

  PO2: Problem analysis

  PO3: Design/development of solutions

  PO4: Conduct investigations of complex problems

  PO5: Modern tool usage

  } Direct Attainment

- These 5 POs lay the *foundation for engineering education*

Remaining- 7 POs

- The remaining 7 POs (PO6-PO12) are primarily non-engineering skills (i.e., Domain independent) deal with the concern, soft skills, life skills, life-long learning and managerial skills Should be addressed trough proper TLP.

PO6: The engineer and society

PO7: Environment and sustainability

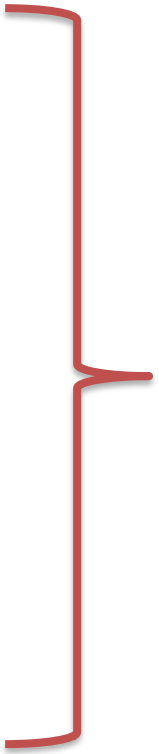
PO8: Ethics

PO9: Individual and team work

PO10: Communication

PO11: Project management and finance

PO12: Life-long learning



Indirect Attainment

Famous Quote -

- ✓ Tell me, and I forget
- ✓ Teach me, and I may remember
- ✓ Involve me and I learn

--Benjamin Franklin

THANK YOU!!