



Process used to identify extent of compliance of university curriculum for attaining POs & PSOs

The Department of Computer Engineering, VPPCOE & VA, Sion, Mumbai is affiliated to University of Mumbai, Mumbai. The curriculum of our programme is based on the affiliated University scheme and syllabus. In general, Curriculum blends the composition of basic science, humanities, and professional courses, as well as their placement in core and elective courses. If some components required to obtain COs/POs are not included in the affiliated University curriculum, the department carries out "Gap Analysis" process in respective domains. To bridge the identified gap, content outside the syllabus is covered through activities under "Content beyond Syllabus". The curriculum is formulated and reviewed once in 4 years through the Board of Studies (BoS) of Computer Engineering Mumbai University. Currently the pattern of program curriculum is REV-2019 C-Scheme in execution. The components of the curriculum are shown in table 2.1

Table 1: Components of Curriculum`

SN	Course Component	Number of Subjects	Total No. of Credits	Curriculum Contents %
1	Basic Science & Humanities	17	33	19
2	Engineering Science	6	12	7
3	Program Core Subjects	41	83	48
4	Program Elective Subjects	13	31	16
5	Major & Mini Projects	6	17	10
Total		83	176	100%

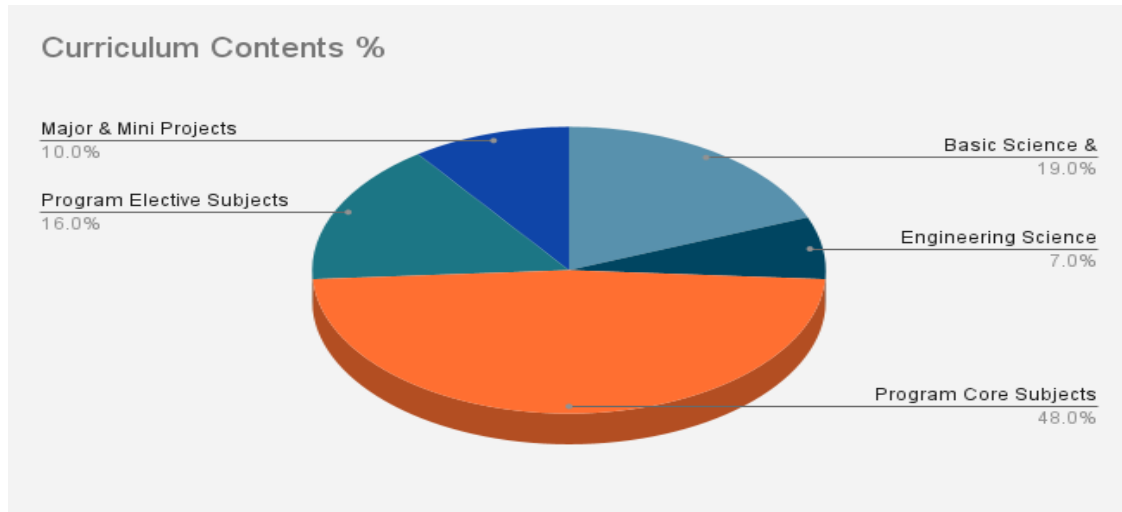


Figure 1: Program Curriculum Components.

The process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes is shown in figure 2

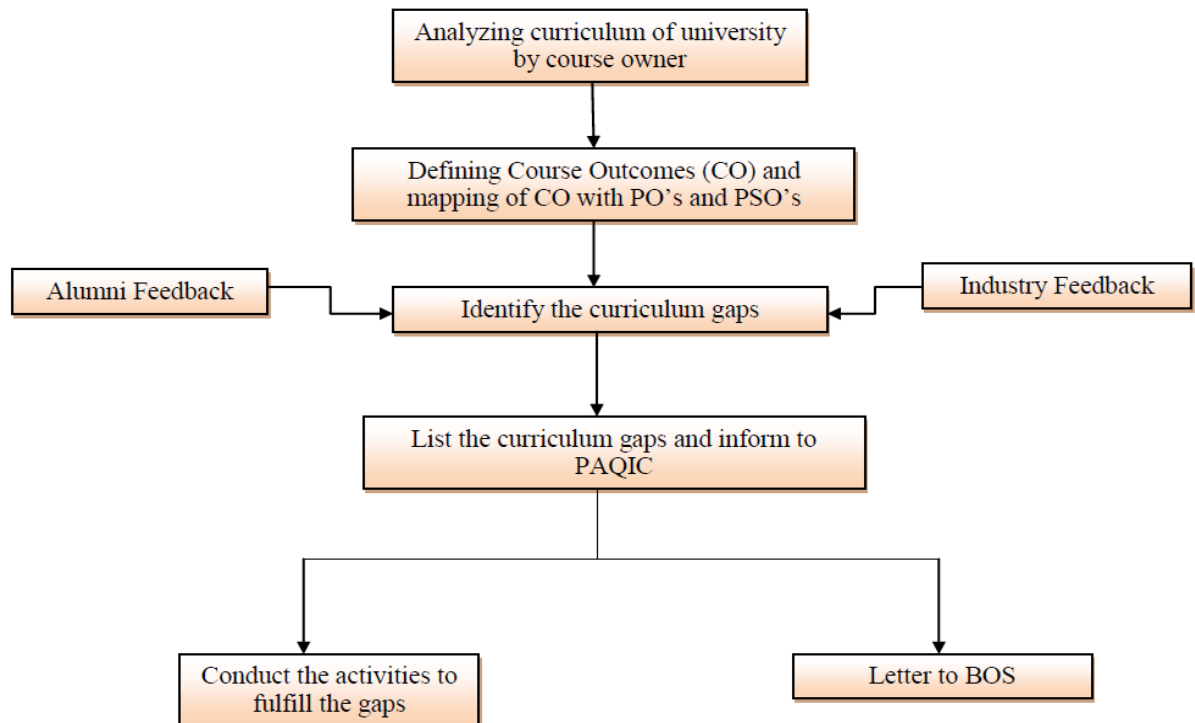


Figure 2. Process to identify compliance of CO's with PO's and PSO's



Identification of Gap through effective participation of Internal and External stakeholders:

1. Individual course owner goes through his/her course syllabus.
2. All course owners survey the latest trends/technologies in respective field with involvement of external stakeholders like Alumni and industry experts etc. and identify the components missing (if any) in the course
3. At the department level all the identified gaps are classified as per the subject domains.
4. Compiled list of the curricular gaps is reported to the Program Assessment Committee.
5. Individual course owners in consultation with PAQIC, conduct the activities like Industry Expert Lectures/Seminar/Webinar/Workshop etc. to bridge the identified gap.
6. List of the curricular gaps like Spatial Data Mining, Animation in computer graphics, Project management etc. are discussed in DAB meetings and communicated to the University.

HOD and subject teacher discuss corrective actions to be taken to fulfill the identified gaps. Planned dates for expert talk, content beyond syllabus and additional laboratory experiments are included in the teaching plan of each course. Subject teacher or expert from industry covers contents through hands-on sessions and lectures. The value addition courses, certification courses and industrial visits help to attain particular POs of the program to a higher level. The curriculum gaps suggested by Alumni and Employers but not intimated to BOS members are also covered through various activities.

Table 2: Activity list to attain identified gaps

Delivery of Content Beyond Syllabus	Justification
Additional Laboratory Experiments	Topics which are important and not the part of lab experiments such additional experiments are conducted to enhance the knowledge.
Case Studies	Case studies given to the students to understand concepts in more detail.
Expert Lecture / Guest Lectures	Various workshops, seminars and guest lectures by academicians / industrialists on different technologies are organized.
Industrial Visits / Tours	Visits to the large or small scale industries are organized to bridge the gap.
Internships	Opportunities for internships to the students on real time projects.



Pre-placement and soft skill Trainings	Training sessions are organized to groom students for aptitude tests, interviews and soft skills.
MOOC / SWAYAM / SPOKEN Tutorial courses	Students are actively participating in NPTEL & Spoken Tutorial by IITB online courses.
Extra-Curricular Activities	Students are actively involved in many extra co- curricular activities like NSS, Cultural Festival and Technical Festival-TANTRA.