TPCT's
Terna Engineering College
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Internal Quality Assurance Cell (IQAC)

PROCESS MANUAL FOR ACADEMIC PLANNING AND MONITORING

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Process Manual for Academic Planning and Monitoring

❖ Introduction:

Quality ensuring academic planning and monitoring is necessary element in providing consistent response to guarantee a sustainable future for the institute. Thus proper and consistent academic planning and monitoring improves overall performance.The planning and monitoring process therefore needs to be open and crystalline in order to maintain better understanding between the all stakeholders of institute

The **purpose** of academic planning and monitoring process is

- ❑ To ensure that all departments have done proper planning before the start of semester in sync with University of Mumbai for conduction of lectures, practicals, co-curricular and extracurricular activities.
- ❑ To ensure that effective teaching learning is taking place throughout the semester.
- ❑ To ensure that fair continuous assessment and evaluation is taking place.

The rest of the manual describes the constituent parts of the academic planning and monitoring process and includes guidance on process and documentation requirements

❖ Process Input:

To start academic planning and monitoring process following inputs are needed

- ❑ Academic Calendar of Affiliating University (University of Mumbai,UoM)
- ❑ All Departments HODs input .
- ❑ Circular from Exam Section of University of Mumbai regarding schedule of Semester Examination
- ❑ University syllabus
- ❑ Institute defined Vision, Mission, POs Short term goals, Long term Goals

❖ Process of Effective Academic Planning and Monitoring:

The process of academic planning and monitoring should be carried out through a systematic procedure as shown in the flow chart and explained in detail as below:

1. **Preparation of Institute Academic Calendar**

   At the beginning of each semester TPCT;s Terna Engineering College, Nerul, Navi Mumbai(TEC) gives academic calendar and guidelines about the dates of commencement of

the semester, end of the semester, In-semester and End-semester examinations,Oral, Practical examinations,holidays etc.

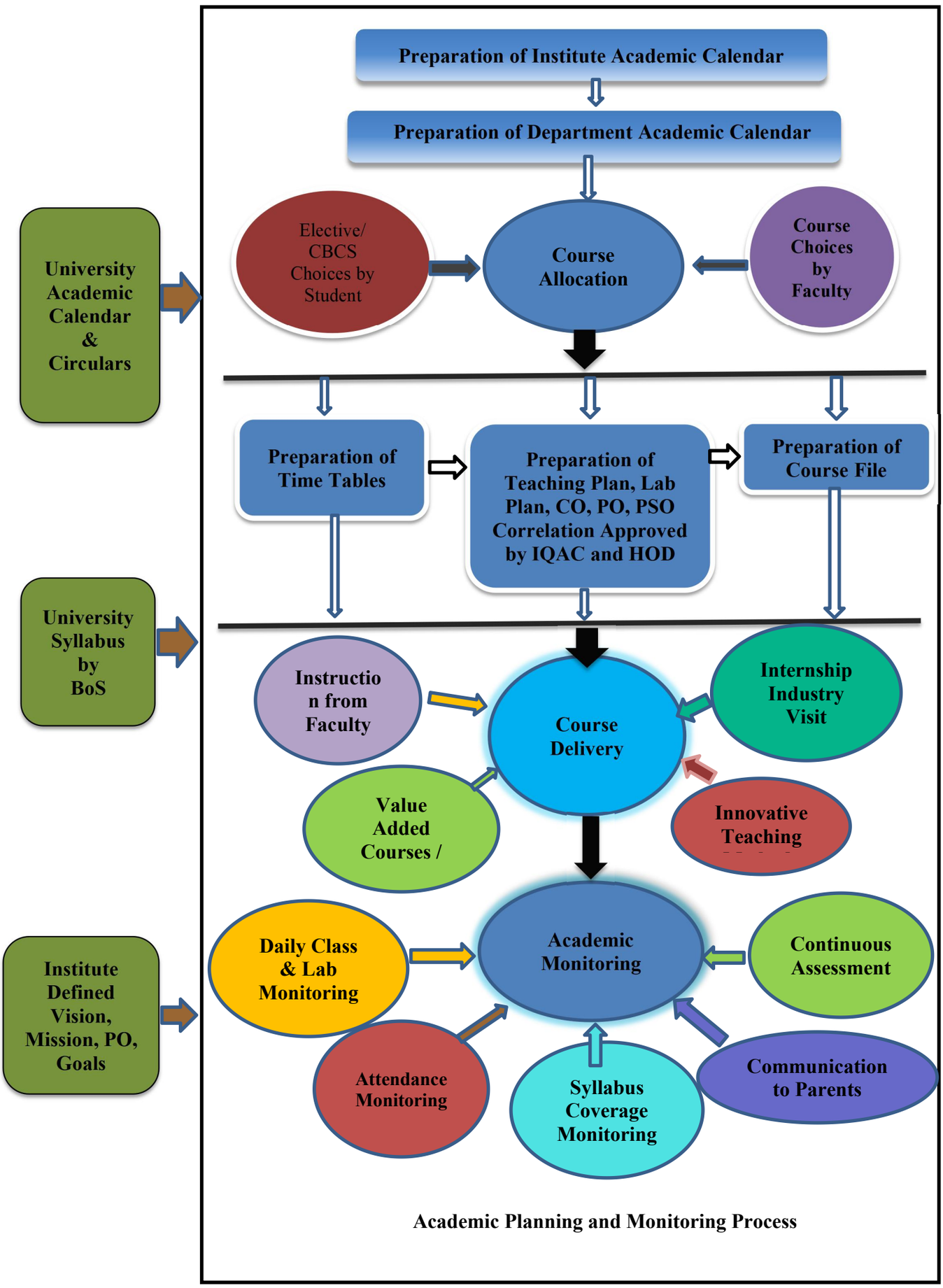
Principal will take inputs through IQAC, and various departments. Based on these inputs Principal, Dean Academics, Head of the Department (HOD), Coordinator Cultural and Sports activities will discuss and prepares the academic calendar for the institute. The academic calendars consist of plan of commencement of instructional activities, conducting Internal Assessment Test I and II, , online examinations, practical / oral examinations, university examination schedules, R/&D activities, Co-curricular and extra curricular activities, Placement activities, Higher Education cell activities, E-Cell activities, EPIC (Electronic Product Innovation Centre) activities, IQAC audits etc. is prepared by Dean academics, approved by principal and governing body and then distributed to all the departments.

2. Preparation of Departmental Academic Calendar

Each Head of the Department along with departmental academic program coordinator will prepare their Department Academic Calendar in consultation with faculty members in the department.

Academic calendars of departments must include dates of Internal Assessment Tests , test, dates of value added courses such as expert talks, soft skill development talks, extra and co-curricular student activities, departmental Student Association activities, industrial visit, mock practicals, dates for submissions, project reviews etc.

Planning of student activities both extra and co-curricular shall be done in co-ordination with college level coordinators.



Academic Planning and Monitoring Process

3. Allocation of courses to faculty

Course allocation is to be done by heads of departments by the end of previous semester in order to enable faculty members to start their preparation in vacation for the courses assigned to them. The steps to be followed by departments are

- Collecting the course choices from faculty members
- Collecting electives choices from the final year and Third year students as per CBCGS pattern which includes department level and institute level elective choices
- Finalization of electives considering the student choices, faculty choices, faculty expertise and previous experience of faculty members.
- Calculation of theory and practical teaching hours as per the finalized electives and university structure
- Allocation of courses to faculty.

4. Preparation of all timetables (Class/ Class Room/ Lab and faculty timetables)

At institute level , Overall time table incharge will look after resource allocation and resource sharing at inter department level which will optimized the resource utilization optimally.Preparation of all time tables including class wise, faculty wise, class room wise and laboratory wise must be completed by respective time table co-coordinators of the departments which is managed and coordinated by institute time table coordinator before the commencement of semester. Same shall be approved by head of department and principal. Approved time table must be uploaded in ERP. Time table must include 2 slots of two hours per week for training and placement activities, each slots on different days. The slots for training and placement activities shall be planned in co-ordination with training and placement cell.

Class room occupancy and laboratory occupancy are to be displayed for class rooms and laboratories.

5. Preparation of Teaching Plan, Lab plan, CO PO PSO Correlation

Affiliating University (University of Mumbai) prescribes the syllabus which specifies the number of lectures, practicals and Tutorials per week, Credits,Course Objectives, Course Outcome, assessment scheme of internal and external marks and list of recommended text and reference books . Every faculty member will prepare the teaching plan, lab plan of entire semester in-line with the syllabus, department's academic calendar and class time table.

Detailed unit-wise and date-wise plan for theory as well as lab will be prepared as per format. Also each Faculty will represent the course outcomes correlation with Program outcome (PO) and program specific outcome (PSO) with help of CO-PO matrix and CO-PSO matrix. Teaching plan and CO, PO, PSO correlation shall be approved by department IQAC Coordinator,Academic Program Coordinator and head of department.

6. Preparation of Course file

Every faculty will prepares the course file, lesson plan and get it approved from APC , IQAC and HOD, before the commencement of the semester.

Course File should consist of following things

1) Vision and Mission

a) Institute Vision and Mission
b) Department Vision and Mission
c) Program Educational objectives(PEO), Program outcomes(PO) and Program Specific Outcomes(PSO)

2) Vision and Mission Vision and Mission

d) Institute Vision and Mission
e) Department Vision and Mission
f) Program Educational objectives(PEO), Program outcomes(PO) and Program Specific Outcomes(PSO)

3) Academic Calendar(Institute/Department)

4) Time Table(Class/Individual)

5) Syllabus

6) Student List(color Version)

7) Teaching Plan

a) Course Objectives
b) Course Outcomes
c) Lesson Plan mapping to CO
d) CO PO mapping, CO PSO mapping
e) Experiment list Mapping to CO,PO and PSO
f) Teaching aids and methodology(PPT/ Digi-class/ video Lectures/Quiz/Black-Board/GD /Numerical/solving queries must be documented
g) Rubrics used for course evaluation(Internal Assessment/Term Work/Assignment/Oral/Project/Mini-Project)
h) Evaluation of Experiment.
i) List of Documents related to the Experiments

8) UNIT TEST(I &II)

a) Syllabus
b) Internal Assessment Unit Test 1[Question Paper, solution, Question wise CO mapping, CO achievement , Rubrics & Mark Sheet]
c) Internal Assessment Unit Test 2[Question Paper, solution, Question wise CO mapping, CO achievement, Rubrics & Mark Sheet]
d) Final Mark Sheet with signature of internal Assessment Test.
e) Question Mapping with CO and PSO, PO with Justification.
f) Result Analysis(Quantify)

9) Remedial Classes

a) Identify Weak Students in unit test and end semester exam KT students
b) Identify Bright students
c) Remedial Class Time table(Weak &bright student)
d) Attendance sheet(Weak &bright student)
e) Topics Discussed (Weak &bright student)
f) Assignment(Weak &bright student)

10) Online Test

a) MCQ
b) Time Table
c) Attendance
d) Result
e) Question mapping with CO, PSO,PO

11) List of Assignments (Minimum TWO)

a) Questions mapping with CO

12) Attendance Sheets(lecture/practicals)
13) Additional Efforts(Rubrics for evaluation, Evaluation sheet, Presentation report)
a) Mock Viva
b) Student presentation / seminar
c) Mini Project Demo
14) Sample Lecture Notes
15) Question Bank [Chapter Wise that covers entire Syllabus]
16) University Question Paper [Last Three Years]
17) Course Content beyond Syllabus

a) Curriculum Gap Identify
b) NPTEL [report]
c) QUIZ
d) Mini Project
e) Staff Efforts (Extra Lectures/Work shops/seminars)

18) CO attainment sheet
19) PO attainment sheet
20) PSO attainment sheet
21) **SummarySheet**

7. Curriculum Delivery (Theory and Practical Sessions)

The effective implementation of curriculum will be ensured by supplementing classroom teaching with expert lectures, presentations/seminars, mini projects, in- house industry supported projects by Electronic Product Innovation Center(EPIC), practicals, tutorials, assignments, case studies,remedial classess, industry visits, industrial training, internships, hands-on-sessions, e-learning, NPTEL lectures, class tests, internal-tests, quiz etc.

Contents beyond curriculum will be identified and taught both in the classroom and in the laboratory to expose student learning to recent trends in the industry.

8. Academic Monitoring

HOD,IQAC, Department Academic Coordinator, Dean Academics, and Principal will monitor the progress of syllabus coverage. The number of lectures planned and the number of lectures actually conducted will be monitored, and necessary corrective actions will be taken for filling the gap.

Following activities related to academic monitoring should be carried out

- ❑ Daily class and lab session monitoring
- ❑ Attendance Monitoring (Subject-wise, Class-wise)
- ❑ Slow and advanced learner activity monitoring
- ❑ Syllabus coverage monitoring
- ❑ Continuous Assessment monitoring

- ❑ Internal Examination schedule, result analysis
- ❑ Upload of assignments, practicals and class notes in ERP
- ❑ Communication to parents through letters and SMS.
- ❑ One Skill based certificate course per semester is mandatory.
- ❑ At-least 20-30 percent mini project should be industry based.

❖ Roles and Responsibilities of faculty member involved:

Multiple faculty member may be responsible for carrying out different aspects of an academic planning and monitoring process as follows:

❑ Role of Dean Academics

The Dean Academic is responsible for following activities:

- ➢ Dean Academics should collect the following information to decide the timeline for semester plan
- Term start and end dates.
- Public Holidays.
- Dates for Mock online Exam, Internal Assessment Tests, End Semester Test.
- Schedule of faculty feedback.
- Dates for annual events (e.g. Resonance, Avalon, Spotec etc.)
- Term work submission dates
- Guidelines for make-up-classes

- ➢ Dean Academics along with all Heads of Department will prepare Institute Academic Calendar and submit the same to Principal for approval. Same is to be forwarded to all the departments at least 15 days before commencement of semester.
- ➢ The Dean Academics will provide guidelines to department coordinators and collect information from departmental coordinators and convey it to the Principal for corrective measures, if required.
- ➢ As and when as per the directives of principal, IQAC will frame the policies, implementation and execution will be carried out by Dean Academics.

❑ Role of Head of Department (HoD)

The head of department is responsible for

- ➢ Course Allocation to faculty
- ➢ Preparation of departmental academic calendar

- Preparing Schedule of Industrial Visits, Guest Lectures.
- QIPs (STTP, FDP, Expert Talks, Conferences, Seminars) if any
- Overall monitoring of department and corrective measures if any

- **Role of Department Academic Coordinator**

The Department Academic Coordinator should monitor:

- Display of Class time table, timely distribution of individual time table.
- Students' Attendance monitoring.
- Syllabus coverage monitoring.
- Records of sending letters/SMS to the parents in coordination with Class advisors regarding their wards' performance.
- Display of monthly attendance (defaulter lists), unit test marks etc.
- Prepare comprehensive department report and submit to the Head of Department and Principal.
- To conduct interaction with subject teachers (if required) and prepare minutes of meeting.
- Conduct mid semester, end semester faculty feedback, Course end survey, Exit survey, graduate exit survey etc related to academics.
- Noting and reporting status of faculty members reporting late /not reporting to lecturer / practical session to HoD

- **Role of Class Teacher**

The class teacher should:

1. Ensuring the Roll call list, batches, students' and their parents/ local guardians' data with address, mobile number, email ids etc. is in place.

2. Collection and maintenance of Theory and Practical Attendance Record from subject Teachers and to prepare monthly defaulter students' list.

3. Monitoring conduction of lectures and Practical regularly and making alternative arrangements in case of faculty is on leave and see that same must be recovered by subject teacher taking extra lectures if required. He will also inform the Academic program coordinator and Head of Department about making substitute arrangement for lectures and practical when a faculty is on leave.

4. Communicating class test time table and other academic activities to the students well in advance.

5. Monitoring the syllabus completion (Theory and Practical) fortnightly and submitting the report to Department Academic coordinator.

6.Maintaining informal feedback from students (if any).

- 7. Conduction of subject teachers meeting if required.
- 8. Monitoring leave and late reporting student.
- **Role Of Subject Teacher**

Subject Teachers will be responsible for all the academic aspects for

1. Development of teaching material, planning of lessons, setting up laboratories and experiment, lab manual etc.
2. Preparing and maintaining course file, taking attendance for each lecture/practical. Maintaining the daily attendance report and send SMS to the parents of absent students.
3. Providing subject notes, unit-wise question bank, assignments and other course material to students.
4. Periodic conduction of class tests, remedial classes, activities for slow learners and advanced learners etc.
5. Handling unscheduled teaching activities such as student mentoring and counselling, setting and evaluating test papers, arranging and conducting tests, conduction of practical and University examinations, guiding mini and major projects, project reviews and evaluation.
6. Preparation of laboratory manual for their labs and Preservation of sample Journal copy
7. Conduct mock practical/ or oral examination for batch allotted to them.
8. Curriculum Development due to the ever expanding demand of knowledge and changing needs of the industry.
9. Student's activities as an adviser to student associations, co-curricular and extra- curricular activities.
10. Administration which may be departmental and or institutional as member / convener of some committee.
11. Professional activities i.e. involvement in professional and technical societies.
12. Continuing education activities (FDP/STTP/Seminars/Workshops/Expert Lectures etc.) both as an organizer and (or) as a participant

❖ Expected Outcome

- Timely conduction of academic activities
- Timely maintenance of Records
- Improvement in University Result Optimization of Institute resources
- Adherence to accreditation (NAAC and NBA) NIRF, LIC and AICTE report
- Planning enhances the smooth conduction of academic and administrative activities

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